

The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1821.—VOL. XL.

London, Saturday, July 16, 1870.

WITH (STAMPED .. SIXPENCE.
(SUPPLEMENT) UNSTAMPED..FIVEPENCE.

MR. JAMES CROFTS, STOCK AND SHAREBROKER,
NO. 1, FINCH LANE, CORNHILL.
(ESTABLISHED 1842.)

HOLDERS of mining shares DIFFICULT OF SALE in the open market may find purchasers for the same through Mr. CROFTS' agency. Also parties requiring advice how to act in the disposal or abandonment of doubtful mining stocks may profitably avail of Mr. CROFTS' long experience on the market in all cases of doubt or difficulty, legal or otherwise.

Mr. CROFTS recommends for immediate purchase ROCHE CONSOLS (Tin) shares. At the latter mine large quantities of rich tinstuff are being laid open, and a valuable mine developed.

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Bankers: Metropolitan Bank.

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following SHARES, free of commission:—
100 Anglo-Argent., 20s. 5 East Lovell, £22½.
100 Anglo-Austral., 12s 6d. 20 East Seton, 20s.
20 Ashton, £25.
30 Australian Unit., £22 2s 9d.
50 Anglo-Brazilian, 7s.
20 Bwich Consols, £3 3s.
15 Bradford Cons., 28s 9d.
20 Caldebeck Falls, 28s.
20 Chonatals, 12s 6d.
25 Caegwyn, £2 1s.
20 Carn Camborne, 24s 6d.
10 Don Pedro, £3 1s. 3d.
20 Drake Walls, 28s.
20 Eclipse, 15s.
10 E. Grenville, £3 3s 9d.
10 Excelsior, 4s.
15 East Caradon, £2 1s.
W. H. B. transacts business in every description of shares at the best market prices, and free of commission.

Daily Price-List free on application.

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95, BISHOPSGATE STREET WITHIN, LONDON, E.C.

JOHN RISLEY, (SWORN) STOCK AND
SHAREBROKER, 48, THREADNEEDLE STREET, LONDON, E.C.
Bankers: London and Westminster, Lombury.

M R. Y. CHRISTIAN, STOCK AND SHAREDEALER,
11, ROYAL EXCHANGE, E.C.,
Bankers: Bank of England.

M R. T. A. MUNDY, STOCK AND SHAREDEALER,
38, BISHOPSGATE STREET WITHIN, E.C.
Bankers: City Bank.

M R. JOHN MOSS, STOCK AND SHAREDEALER,
ST. MICHAEL'S CHAMBERS, 42, CORNHILL, E.C.
Bankers: City Bank, Finch-lane, E.C.

M R. C. A. POWELL, BRITISH AND FOREIGN STOCK AND
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Money advanced to any extent on good mining shares.

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of that country.

M R. HENRY MANSELL, STOCK AND SHAREDEALER,
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Mr. H. M. has the following SHARES left with him FOR SALE, and solicits

fers for the same, or any part:—
50 Harewood Consols, 50 West Pant-y-Go, 100 Excelsior, 50 North Pool, 24s 9 p.m.

50 Trelawny, 50 Bryn Royalton (fully paid). 25 Hammett, 25 Aberdaunant (fully paid).

50 Holmbush, and Kelly Bray (fully paid). 20 Liwernog, 20 South Herodsfoot, 50 Nanteos Consols.

20 West Stiperstones, 50 Virtuous Lady.

Mr. HENRY MANSELL recommends the following shares as safe investments at

present prices:—Great Vor, West Jewell, Terras, Van Consols, West Esqair-Lie, 50 Cefn Consols. All particulars on application.

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References exchanged.

M R. WILLIAM MARLBOROUGH, 1, GREAT ST. HELEN'S,
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FOR SALE the FOLLOWING SHARES, at net prices:—

50 Aberdaunant, 24s. 9d. 20 Eberhardt, £3 8s 9 p.m. 5 Marke Valley, £7 19s.

50 Austral. Unit., 44s 9d. 20 Excelsior, 2s. 50 North Pool, 24s.

50 Anglo-Brazilian, 7s 5d. 5 East Lovell, £22 2s.

50 Anglo-Argent., 18s 9d. 10 East Caradon, £5.

50 Ashton, 25 1s. 6d. 10 East Bassett, £6 1s.

50 Bwich Consols, £25.

100 Bradford Cons., 28s 9d. 100 East Seton, 20s. 9d.

50 Caldebeck Falls, 24s 3d. 100 Eglwys, 1s. 9d.

50 Bodmin Consols, 29s.

50 Chonatals, 12s 6d. 20 E. Bottles Hill, 1s. 6d.

50 Cefn Consols, 25s.

50 Frank Mills, £22 1s.

50 Caldebeck Falls, 28s. 7d.

50 Chilerton Moor, £4 7s.

10 Cardigan Bay, £3 3s.

20 Carn Camborne, 24s 2s.

10 Great Vor, £1.

50 Cook's Kitchen, £20.

50 Don Pedro, 4s 2d pm.

1 Devon Cons., £10 3s.

50 Drake Walls, 28s. 9d.

50 West Pant-y-Go, 1s.

50 Harewood Con., 3s 9d

50 West Pant-y-Go, at net prices of:—

50 Hammett, 20 Poblen, 20 New Pembrok., 10 Tankerville, 25 Bwich Consols, 30 Polbreen, 20 New Pembroke, 15 Frank Mills, 50 Okel Tor, 75 Nanteos Consols, 40 South Darren, 50 South Rances, 35 Great South Chilerton, 100 East Chilerton, 70 Great South Tolues, 50 Spean Moor, 50 West Chilerton, 40 South Herodsfoot, 180 South Grenville, 80 Edmund, 10 Wheal Killy (St. Agnes), 3 Minera, 3 Wheal Seton, 20 Mae-y-Safn, 50 Wheal Crebhor, 10 Asheton.

Mr. BUDGE advises investors to secure an interest in Bwadrain Consols. He

states that he does not know another mine making equal returns, and

being open such reserves, or so favourably situated, the shares of which are

not at anything like the price. There were sold on the 8th inst. 30 tons of

50 ore.

50 West Pant-y-Go, 1s.

50 Harewood Con., 3s 9d

50 West Pant-y-Go, at net prices of:—

50 Hammett, 20 Poblen, 20 New Pembroke, 15 Frank Mills, 50 Okel Tor, 75 Nanteos Consols, 40 South Darren, 50 South Rances, 35 Great South Chilerton, 100 East Chilerton, 70 Great South Tolues, 50 Spean Moor, 50 West Chilerton, 40 South Herodsfoot, 180 South Grenville, 80 Edmund, 10 Wheal Killy (St. Agnes), 3 Minera, 3 Wheal Seton, 20 Mae-y-Safn, 50 Wheal Crebhor, 10 Asheton.

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Made entirely of WROUGHT-IRON TUBES, and other improvements, adapting it for MARINE, STATIONARY, and PORTABLE ENGINES.

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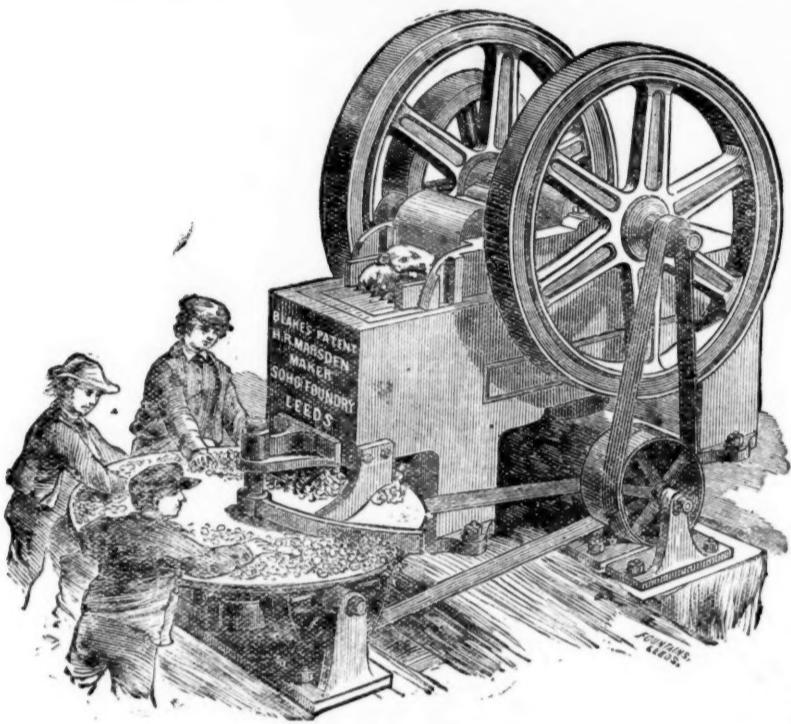
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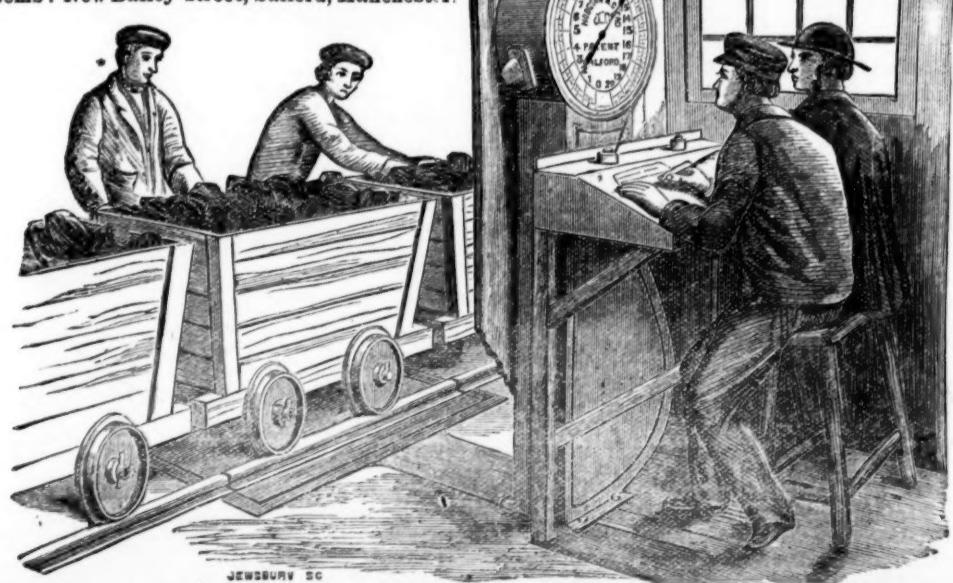
To the standard of any nation,
Suitable for every purpose, of any power and dimensions.

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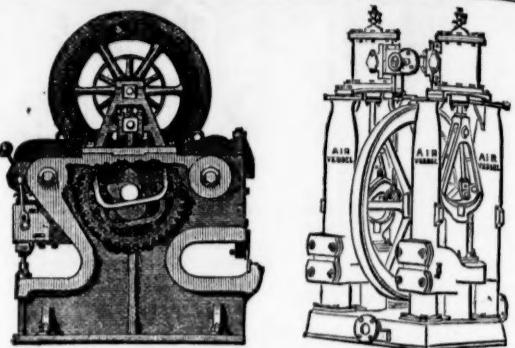
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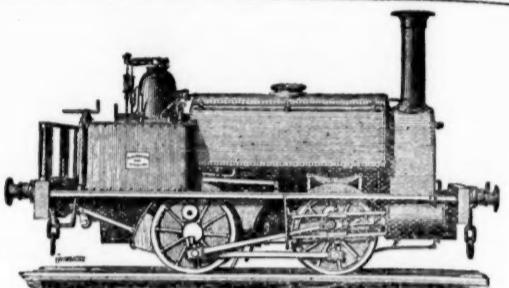
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PUNCHING MACHINES,
EGERTON STREET IRON WORKS,
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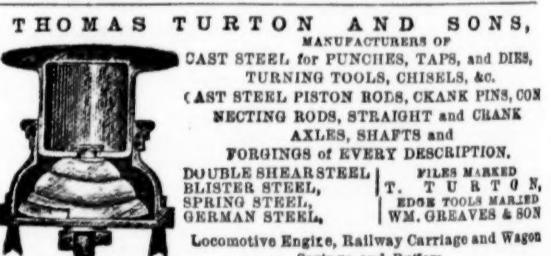
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FOR PUMPING AND WINDING.
SPECIALLY ADAPTED for PITS, QUARRIES, &c.
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Steam Cranes, 20 cwt., to 20 tons, for wharf or rail.
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AXLES, SHAFTS and
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FILE MARKED T. TURTON, EDGE TOOLS MARKED WM. GREAVES & SON
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From the very best quality of charcoal iron and steel wire.

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LATIONS, DRAWINGS, &c.

MICHAEL HENRY,
Mem. Soc. Arts, Assoc. Soc. Engineers, Compiler of the "Inventor's Almanac,"
and the Author of the "Defence of the Present Patent Law."

PATENT REGISTRATION AND COPYRIGHT AGENT AND ADVISER.
Mr. HENRY has had especial experience in technical French, and in French
Manufacturing and Commercial Matters.
Inventors advised in relation to Patents and Inventions and Industrial Mat-
ters. Printed information sent free by post. Specifications drawn and revised,
searches conducted. Abstracts, Cases, and Opinions drawn.
Offices, 68, Fleet-street, E.C., London, corner of and entrance in Whitefriars
Street.

Meetings of Mining Companies.

THE TANKERVILLE MINING COMPANY.

The first general meeting of shareholders was held at the mine, near Minsterley, on Tuesday. It may not be generally known that this property was originally worked by the well-known lead smelters, Messrs. Walker, Parker, and Co., and that subsequently, under the direction of the present able manager, steam-power was provided, the shaft deepened, and a series of cross-cuts put out to prove the hill ground south of the workings then in progress. Emboldened by the extraordinary results thus developed, the shaft was sunk to a still greater depth, which disclosed a lode of almost unexampled productiveness; for while in the 42 it did not yield more than from 2 to 3 tons per fathom, at the present depth—8 ft. below the 94—it is between 15 and 16 ft. in width, and is stated to have produced as much as 60 tons per fathom. The manager of the neighbouring mine (Snailbeach) has affirmed that during his experience there never has been so rich a lode at Snailbeach. The permanent character of the mine is still further materially guaranteed by the fact that there are many other important lodes, many of which will be commanded by the new shaft now in course of sinking. One of these—the south lode—is standing whole below the 62, its rich ore being parallel to the great bunch in the Tankerville lode; these two lodes are expected to form a junction in depth. Therefore, as the manager very properly observes, "it is extremely difficult to estimate the real value of a mine like this," the more especially when it is borne in mind that from the almost exceptional purity of its ore the cost of bringing it into a merchantable condition is probably less than that of any other lead mine.

For the information of those who may wish to visit the important mining district in which Tankerville now deservedly occupies such a prominent position, it may not be out of place to mention that it is situated about 14 miles from Shrewsbury. From north-east to south-west it extends for a distance of something like four miles, its breadth varying from one to two miles. The extreme opposite points are marked by the celebrated Snailbeach and the White Grit Mines. Although the district is comparatively limited in extent, the various lodes have proved, and are still proving, to be highly productive to a very considerable depth, as instance in the Old Bog, Pennerley (Stiperstones), and Snailbeach. The lodes occur in the Llandilo group of the Lower Silurian period.

According to the testimony of Captain Waters, who has made this district his special study for many years, successful mining has been carried on for a very considerable period, almost exclusively by private enterprise, and, therefore, the wealth of the mines has been hid from public observation. Lead mining in this district dates back at least to the Roman period, a pig of lead stamped with the date of the reign of Adrian VIII. being still in the neighbourhood. It appears that more than a century since the whole of the mines now in active working were incorporated under one local company, which from various causes (not the least important being inadequate capital and inefficient machinery) proved unsuccessful.

Among the numerous really valuable mines thus abandoned by that company (locally known as "The Laurences") were Snailbeach, Tankerville, Old Bog, and Pennerley. Since that period Snailbeach has been sunk to a depth of about 200 fathoms; and in one of the deeper levels a course of ore has been driven through for a length exceeding 100 fathoms, the average yield being computed at not less than 10 tons of lead ore per cubic fathom. The present returns are about 250 tons per month. Old Bog also has been sunk nearly 200 fathoms; and it is said, in the locality, that the lodes yielded for many years upwards of 400 tons of lead ore per month. The Batholes and Roman Gravels Mines have likewise yielded enormous returns of lead and blende. Indeed, we have the authority of Captain Waters for stating that in no single instance has a mine in the district been fully developed that has not proved to be a rich prize to its shareholders.

Among those present at the meeting were—Messrs. W. Greame, Peter Watson, E. Geach, R. Wilson, S. York, W. Michell, P. Elwell, H. Braund, W. Martineau, T. R. Lewis, E. Cooke, F. Richardson, J. W. Dixon, H. C. Batchelor, S. Olding, H. Charlton, J. J. Pyne, J. H. Murchison, T. Bramwell, E. Collins, J. Eddy, and Captain A. Waters, &c.

The chair was occupied by Mr. GREAME, who stated that although the meeting was formal in its character, being held conformably with the provisions of the Companies Act, the directors, at the solicitation of many of the largest shareholders, had decided to hold it upon the mine, and the goodly number he saw present, more than half the proprietors being represented, was, he need hardly say, the best evidence that the step had been duly appreciated. (Hear, hear.) As far as he was concerned, he knew the mine and its great ore-producing capabilities, but upon the present occasion it would be much more satisfactory to hear from those shareholders who had just returned from underground their account of what they had seen. (Hear, hear.) Unlike most mines, the value of Tankerville could be judged by the most uninitiated, for the solidity and extent of the several deposits spoke for themselves, and knowing by results its commercial value, a tolerably correct computation could be made as to its intrinsic merits, but certainly the most sanguine among them could not have anticipated that such a mass of ore, unequalled as to richness by any mine in the United Kingdom, would have been opened out at the present bottom of the mine. (Hear, hear.) He would not, however, now detain the meeting by any lengthened remarks, but would call upon the manager of the mine, Capt. Arthur Waters, to submit his report.

Capt. ARTHUR WATERS, after a few introductory remarks, read his report as follows :

July 11.—The day when the Tankerville Mining Company (Limited) was formed, and the date when active operations were commenced, must be fresh in the recollections of most of you. The conditions of sale stipulated that all ore stuff broken up to Feb. 28 last should be the property of the late proprietor; consequently, it was near the end of March before the old stuff was washed up, and returns became available for bringing to surface by the company. Before entering upon a detailed account of the progress made in the development of the mines during the present working, I would just remark that my original report on the property, giving, as it does, a description of the district in general, obviates the necessity of my now saying a word about the geology of the mines or collateral subjects. When the company took possession operations had to be commenced under numerous disadvantages. There was only one shaft which was sunk from surface to present bottom (the 74) to command the old lode, but which was in such poor condition, small withal, and not available for the development of the great Tankerville lode, that until recently all the stuff broken in sinking, stopping, and driving levels on the latter, from the 74 to the 92, had to be drawn up to the bottom of the old shaft by manual labour, involving loss of time, comparatively small returns, as well as extra cost in the get of ore stuff. The machinery, too, was so inadequate that for the first two months little progress could be made, owing to the small quantity of stuff it was possible to bring to surface. An old-fashioned 16-in. cylinder high-pressure engine, to do all the winding, crushing, and pumping in a mine like this, need only be named to fully explain what the position was in regard to adequate motive-power. The way to grapple with difficulties being to overcome them, a new engine-shaft was started from surface to go down in direct communication with the great lode, and by which, from its central position, the other lodes can be worked simultaneously. The shaft is down 12 fms. 2 ft., is well timbered, caed, and divided, with ladders and solars fixed to bottom, the water and stuff being drawn by the engine. Now that the sinking goes on uninterruptedly we expect the shaft to be down to adit, and a communication with the cross-cut effected. In the course of the next four months. We have driven the cross-cut 12 fms. 5 ft. west of old shaft, and have 15 fms. 1 ft. 6 in. more to drive to the line of Watson's engine-shaft. We have also driven the 42, west of Owen's winge, 4 fms. 2 ft. 6 in., which is up to the perpendicular of the new shaft, and the men are sinking below that level to communicate with the 52, which, when accomplished, will put us in a position to lay down all our lines, from which we can then make good the various sections from adit to the 92 at one and the same time. By the time the work now immediately under consideration is completed we shall have sunk the shaft to and laid open rich sections of lode at the 104, 116, and 128 fm. levels, when, from what we already know of the mine, we shall be able to increase our return to (say) 300 to 400 tons of lead ore per month. We have already sunk the shaft 3 fms. 2 ft. below the 92, in a lode averaging 16 ft. wide, the yield of ore throughout being worth 8 tons of lead ore, or a money value of 980/- per fathom for every 6 ft. sunk, the shaft being 2 fms. long. The splendid course of ore in both ends of the stope must be seen to be realised. The back of the 92, directly over the shaft, also shows a great course of ore, worth fully 20 tons per cubic fathom, and which is standing whole to the 82. This rich section of lode will have to be stopped forthwith, it being necessary to take the ground away to form the line of Watson's shaft from the 92 upwards. Brown's stopes, in back of the said level, west of winge, is worth 8 tons of ore per cubic fathom, and goes on improving as we approach the rim of the great deposit at and about the above-named shaft. From roof of Brown's stope (6 ft. above the 92) to the 74, there is a continuous rich course of ore. The stope in the 92, east of winge, is also yielding about 8 tons of ore per cubic fathom. Brown's shaft, which is composed for winding through with machine-kibble from the 74 to the bottom level, goes down in the centre of a rich run of ore, and which is now cut open to advantage for stoping. In connection with this shaft a large fork is made, into

which the bottom water is drained; drawn from thence by the small engine, instead of by manual labour, as hitherto. At the 74 shaft-tackle has been erected, landing-brace put up, roomy shoot, or pass, for the lead-staff provided, together with new engine, boiler, and driving-machine set into place, all of which go to make up a power much needed, and which will facilitate the future working of the mine, and thereby add in no small degree to the profits of the company. A considerable amount of work has been done also in trying to get rid of the smoke from the poler above mentioned, by a system of pipes and trap-doors from Tankerville lode into the workings on old lode, and thence out to surface by way of the Boat level. This mode seemed to meet the requirements of the case at first, but we found that when a change in the temperature or in the direction of the wind occurred at surface a corresponding change in the draught from the boiler was produced, causing the working of the engine to be a matter of difficulty and uncertainty. To overcome this, we have carried up a most complete wrought-iron chimney from the 74 to surface, the entire length of pipes being 170 fms. In a few days the engine will be in full swing, some 24 men, who have hitherto been constantly employed in winding ore stuff and water from all the workings below the 74, will be relieved of that duty, and be added to the number of miners daily engaged in the direct get of lead ore. There being no further need of using the winzes as outlets for the stuff, the rich sections of ore ground east and west of those points can be stopped at will. And what is most important, this new ground will be worked and our returns materially increased without adding to our present monthly labour cost. No trials of importance, or discoveries worthy of remark, have been made in the upper levels on either the old lode, Robert's lode, or south lode, since you have been in possession. Now we have so greatly improved our position for the dispatch of stuff, trials will be made, and productive points laid open on all the veins enumerated. The new 25-horse power steam-engine put up at surface for winding out of all the shafts is a splendid machine, and is equal to our present needs. We hope to complete the erection of house around and over the said engine in two days from this date. Men are employed taking out foundations for large engine and crusher house to be built in connection with Watson's engine-shaft. We are also preparing work for new dressing-floors, including machine, jiggings-sleves, and round buddles, and hope to be able to dress large returns at a small cost per ton of ore. The ore being found in solid masses, and associated with a very light matrix, there will be no need for large or expensive dressing machinery. In conclusion, let me inform you that the mine never looked better than it does to-day—that Watson's shaft, below the 92, continues to go down in a course of ore that widens and becomes richer as we sink day by day, that instead of reducing we go on adding to our reserves, and have every prospect of further doing so for many years to come. The returns for the past four months amount to 450 tons of lead ore, and we calculate our produce for the next four months will be 700 tons, the labour cost (less royalty) being about the same as in the preceding period.—ARTHUR WATERS.

The CHAIRMAN then invited those shareholders who had been underground to state to the meeting the result of their personal inspection of the property; and perhaps Mr. William Michell, who had had considerable practical experience in lead mines, would open the discussion.

Mr. WILLIAM MICHELL said his report of to-day's inspection could be condensed in a very few words—that since his last inspection the mine had improved in actual value at least 50 per cent. (Hear, hear.) He made that statement as a practical man, and challenged contradiction. The shares, although now selling at 17/-, were better worth 20/- or 22/-, than when they were readily negotiable at that quotation. The difficulty under which the mine had been worked was all but surmounted, but it would take them at least seven years to develop such a mine; and during that period there would be a gradual increase upon the present returns, yielding a very handsome interest upon shares at far above their present price. That result would be realised from the one lode only now being developed, but there were many other important lodes to be explored. From this one lode, which improved in value every foot it was sunk upon, the present returns were very little as compared with what they would be presently. Practicals could better understand its value when he stated that six men would stop more than twenty-four would sink. His unhesitating belief was that during the next seven years Tankerville would surpass any mine in the United Kingdom. (Hear, hear.)

Mr. EDWARD COOKE said it afforded him very great pleasure upon this, his sixth inspection of the mine, to have been accompanied by several shareholders. Those who had availed themselves of the present opportunity to inspect the mine could judge themselves of the capabilities of the property in which they have embarked their capital. (Hear, hear.) No one with even ordinary perceptive faculties could fail to be struck with the enormous richness of Tankerville, for it was, in truth, a grand mine, and he could find no other words to express his own opinion of it. He stated this in the presence of a practical man, who had had long and varied experience in mines, and who had probably seen lodes in lead mines of great value. But he ventured to say, however, that he never in the whole course of his experience saw such a valuable lode as he had just seen at the bottom of Watson's shaft. (Hear, hear.) He had told them that the mine had improved fully 50 per cent. in value since he last inspected it. He (Mr. Cooke) was pleased that so many shareholders had availed themselves of the opportunity of going underground, although the time did not allow them to see a tithe part of the ore ground in the upper levels. He was asked sometimes, why are the shares so dull? All he could say in reply was that the price of the shares was no criterion whatever of the value of the mine. For his own part, he was utterly indifferent about it. He looked more to the returns of ore and the future prospects, feeling confident that shareholders would be in the receipt of good dividends for many years to come. (Hear, hear.) At present the mine may be said to be just in its infancy, and yet in not more than four months from the formation of the company the directors would probably announce the payment of a dividend of 3000/- from actual profits on the sales of lead. He would say to anyone—"Send and have the mine inspected if you have any misgivings as to the accuracy of the extraordinary accounts given of this valuable property." (Hear, hear.) Holding a large interest in it, it may be said that he allowed that to warp his judgment, but it was that fact that induced him to enter so minutely into the various details; and it was a great satisfaction to him to find that the favourable opinion he had formed, and so often expressed, was shared in and more than endorsed by practical men well acquainted with the Tankerville Mine. (Hear, hear.) It was not too much to say that there was no known lead lode in the whole world equal in value to that now being opened out at Tankerville. (Hear, hear.) Capt. Arthur Waters believed that the best of it would not be reached till the shaft had been sunk 200 fms. deeper; and he based his opinion not only upon the character of the lode itself, but also from what had been realised in the district—for example, at Snailbeach, Old Bog, and Pennerley. Therefore, Tankerville would prove not only an unusually productive, but also an unusually lasting mine. (Hear, hear.) The lode had improved from level to level, and as yet it had been proved for about 39 fathoms in length, and who could tell that it would not be proved of equal value for 60 fms. long? Already they had a mine good enough for their lifetime? He remembered that Mr. Michell, after his first visit to the mine, computed the reserves as being worth 100,000/-, and if since the mine had improved in value 50 per cent. the aggregate money value of the reserves already opened out was at least equal to the price at which the shares are quoted. There were many thousands of fathoms of ore ground yet to be opened on above the 74 fm. level, and many lodes to be explored, which were known to be very rich. Those lodes would be developed when the new shaft had been sunk, and those who elected to retain their interest until the work was accomplished would be handsomely rewarded for their patience. (Hear, hear.)

Mr. EDDY (of Snailbeach), who had just inspected the mine, stated that the various points of operation were certainly rather under than overstated by Capt. Waters. (Hear, hear.) The value of the mine a month since—when he last inspected it—and its present value was but very inadequately expressed by the statement that it had improved 50 per cent. He believed that when the little underground engine was fairly at work they would be able at once to raise the returns to 250 or 300 tons per month. (Hear, hear.) He did not see how they could get less, for there was the lead ground to produce it, while its dressing could be done with the greatest ease. Mr. LEWIS thought those shareholders who had been underground were much indebted to those practical gentlemen who had accompanied them, for they had thus derived much valuable information. He expressed himself much pleased with the result of his visit.

Mr. OLDING said the straightforward openness and candour evinced by the directors and the manager, by inviting shareholders to visit the mine—to say nothing of the self-evident value of the mine itself—could not fail to strengthen the confidence of the shareholders in the Tankerville Mining Company. (Hear, hear.) What he had just seen underground was something wonderful, and although he was not a practical man he could see that already a sufficient amount of wealth had been discovered to ensure the prosperity of the company for many years to come. He personally tendered the directors his thanks for having invited him to inspect his property, and all he could say was that he had been more than pleased with his visit. He much admired the most manly and politic course thus taken by the directors, and he could only hope that their commendable example was the rule instead of the exception. (Hear, hear.)

Mr. SMITH (of Manchester), having been underground, confirmed the previous account of the truly wonderful character of the mine, as well as to the expediency of the course adopted by the directors in inviting the shareholders to visit the mine.

Mr. YORK said the actual value of the mine was so clear that he need only endorse what had been already said. His opinion was best shown by the fact that after he inspected the mine, some time since, he acquired a tolerably substantial interest in the company. (Hear, hear.) It afforded him pleasure to bear testimony to the unvarying under-estimates put forward by Capt. Waters as to the actual value of the mine, and it must be satisfactory to the shareholders to find that Mr. Eddy (of Snailbeach) had just stated that Captain Waters' report was very much under-stated. (Hear, hear.) It was impossible to have a more straightforward or worthy man than Capt. Waters, or one better qualified to develop the enormous resources of their marvellously rich property. (Hear, hear.)

Mr. COLLINS had closely followed up the reports which had appeared in the *Mining Journal* since the Tankerville Mine became the property of the company, and certainly all that Captain Waters had stated had been most abundantly verified.

Mr. PETER WATSON, as a director, was exceedingly gratified to meet so many shareholders present at this the first general meeting of the Tankerville Mining Company. Some from Manchester, others from Liverpool, Wolverhampton, and London, and that all had testified to the great—the truly great—value of their property. (Hear.) There was no other such mine as Tankerville—there was no other lode so rich, either in this or any known country. (Hear, hear.) He believed that there was as great a future for this as any lead mine in the United Kingdom, whether as regards the returns or profits, and if such were not his opinion he certainly should not hold his present large interest in the company. Captain Waters had not told them that the money value of the lode in the shaft was 980/- per fathom, and that 980/- worth of lead was obtainable at an outlay of only 25/-, and that the lode in the shaft was alone capable of yielding 100 tons of lead per month. (Hear, hear.) He did not think that sufficient importance was attached to the other celebrated

lodges which traversed their extensive mine, and had proved highly productive to the lowest point wrought; nor did it appear to be generally known that the sett comprised within its limits another mine, altogether independent of Tankerville proper—that was in reserve as a nest-egg for the future benefit of the shareholders. (Hear, hear.) So that the shareholders possessed an auxiliary interest irrespective of the present Tankerville Mine. He did not wish to depreciate the property of anyone, but seeing that the lode in Tankerville had been proved for such a length and depth to be of such exceptional richness, and was opening out even still more productive, he felt no one would charge him with being over-sanguine when he stated that Tankerville would surpass—and that at no distant date—the most productive mine in Wales. (Hear, hear.)

Mr. DIXON was exceedingly pleased to be connected with such a mine, and he was equally pleased with the efficiency and candour of their able manager, Capt. Waters. (Hear, hear.) The directors too, were fully entitled to the best thanks of the shareholders for the satisfactory way in which they had conducted the affairs of the company. (Hear, hear.) Mr. PYNE believed that those who retained their shares would realise very handsome dividends.

Mr. DANIEL (the engineer), in reply to a question, stated that Jigging by machinery, as at the Van Mine, was not only much more inexpensive than hand-jigging, but the cost was so comparatively trifling that it often paid well to remove the waste.—The CHAIRMAN had omitted to mention that the directors thought they would be in a position at their next meeting to declare a dividend, as in addition to the amount standing to the credit of capital, they had in hand nearly 3000/-, the proceeds of ore sold.

Mr. GEACH testified to the increasing value of the mine, and expressed his opinion that those who held the shares the longest, the more satisfactory would it be to them, both as to the actual value of the property, and the increased dividends that would be received. (Hear, hear.)

Mr. E. COOKE said the directors could have no possible object in retaining the profit realised by the sale of ore, seeing that there was ample capital in hand to meet all possible contingencies.

Mr. YORK said that after the elaborate report submitted by Capt. Waters, and the exhaustive discussion which had taken place, the meeting could not possibly separate without according to Captain Waters the best thanks of the shareholders for the satisfactory manner in which he had conducted the various important practical details in the development of the mine. (Hear, hear.) He then moved a proposition to that effect.

Mr. DIXON had much pleasure in seconding the motion. No one could be with Capt. Waters long without being struck with his energy and industry. It was evident that he devoted his whole soul to his work. (Hear, hear.)

Mr. MURCHISON said that he had much pleasure in bearing his testimony to the manner in which Capt. Waters had managed the mine since the present company had possession of it, and further to the fact that the representations which Capt. Waters made to him when he introduced the mine to him (Mr. Murchison) had been fully realised. This was rather unusual in connection with such properties. He could not say that a dividend was looming in the distance, for it might be said that it was already all but declared, and no doubt would actually be so in three or four weeks. The mine appeared to be improving in depth, and from present appearance Tankerville was likely to be one of the richest, if not the richest, mine in the country. There was nothing so convincing as seeing for one's self, and his advice to the shareholders generally was to visit the mine and examine it as minutely as possible. He could only say that it was highly pleasing and satisfactory to him to have introduced this mine to his friends on its first being brought to his notice by Capt. Waters. (Hear, hear.)

The proposition was then put and carried unanimously.

Capt. WATERS, having appropriately acknowledged the vote, stated that the future of Tankerville was big with success. (Hear, hear.) Certainly no one could but be satisfied that in Tankerville they had a great and lasting mine. He had known it for years, and he felt it was going on improving from day to day. It was situated in the right geological country—the rocks were acknowledged to be the most prolific of ore. The Snailbeach was one of the oldest mines in the kingdom, and had been one of the most productive. Old Bog, in the same district, had yielded immense quantities of ore, and the Peenerry Mines (now belonging to the Stiperstones Company) had also yielded enormously. The Roman Gravels and other mines had also proved immensely rich. There could be no doubt that Tankerville was only just beginning to show what it could do. He believed the day was not far distant when Tankerville, if not the best lead mine, would certainly be next to the best lead mine in the kingdom. (Hear, hear.) He could assure the shareholders that all the strength of his body and mind should be brought to bear to produce the most satisfactory results. They had made a fair beginning, and they would go on increasing two, three, and even fourfold within the next two years. (Hear, hear.)

A vote of thanks was passed to the Chairman and directors, when the meeting separated.

WEST TANKERVILLE MINING COMPANY.

The first general meeting of shareholders was held on the mine, near Minsterley, on Wednesday, at which Mr. GREAME (the Chairman of the company) presided.

It may be mentioned that this company was formed about four months since, and that the property acquired is an extensive one, being 500 fms. from north to south, and about half a mile from east to west. Embraced within this area there are thirteen known north and south lodes, including some of the most productive of the Shropshire district. West Tankerville, like the Tankerville and Snailbeach Mines, was worked many years since by the Laurences, who expended nearly 500,000/- throughout the district, the greater portion of which was supplied by returns from lodes within the limits of the West Tankerville sett. The Wood vein, upon which a shaft is now being sunk, yielded 300,000/- worth of ore, pig lead at the time selling at not more than 8/- per ton. From surface to the 18 fathom level 300 tons of ore quarterly were drawn from the Wood shaft by horse-whim for a series of years. Through mismanagement and misrule generally the Laurences came to grief, and abandoned the whole of their mines in succession; but the Roman Gravels is again in operation, and yielding large profits. This latter mine adjoins West Tankerville. In addition to the 13 lodes above referred to, the Snailbeach lode traverses the sett for about half a mile in the eastern boundary, and the direction of the Snailbeach lode being nearly east and west it must form a junction with the West Tankerville and California lodes

level in order to receive tramroad, which will be laid from the said shaft to dressing floors. The adit level is being driven south-east of north boundary shaft, on a lode which is yielding rich stones of lead, in a soft open course of protoxide of iron, a lode characteristic of the mines in this district, and which is mostly found very prolific in what is locally called softness, sea bog.—Pembrey and White Grit Mines: A winze has been sunk on north boundary lode 10 fms. below adit, in a fairly productive bunch of ore, opening tribute ground. We are now driving north and south of winze, to prove the lode on either side of it. The new south boundary shaft is sunk from surface 6 fms., and well secured with timber to the bottom. This shaft will go down perpendicular, to command the three lodes which come in from the Roman Gravels, and which in that mine have together yielded large quantities of lead ore. The ends (the 60 and 40) are driven up to our boundary, and suspended, in rich ore ground. We shall push the sinking of this shaft as much as possible, and hope to make great progress towards the object in view in course of the next 12 months. As soon as the shaft is down to the 20 below adit, or 50 fms. from surface, we shall cross-cut to the different lodes, with a view of finding open workings, and through them get down to the productive stope, and commence raising lead before the shaft reaches the 40 and 60 fm. levels. I have every reason for believing in the great value of your property, and that early returns will soon be made in it. We have put all the old surface buildings in repair, and are now building office and house for the resident agent. A good roomy engine-pool is being made, and dressing-floors provided for. I may say, in conclusion, that we are now in fair order for carrying the works on to a speedy and successful issue.—A. WATERS.

Capt. WATERS, in reply to Mr. Peter Watson, said that about 13 fathoms had been sunk on the California lode in two months. He calculated what would take about twelve months to sink the shaft to the 60, on the Roman Gravels lode. The dressing machinery would be ready by the time they were in a position to go into the market with regular samplings. As soon as the California shaft reached the adit stope ground would be laid open. He estimated that in the course of the next six months they would begin to make regular samplings.

Mr. YORK asked if the pumping-engine was ready?—Capt. WATERS replied in the affirmative, adding that the boiler had just arrived on the mine. The shaft was also ready. The 60 was the deepest point in the mine.

Mr. PETER WATSON said that he kept the books of the old company, and as far as he could recollect, even with the limited operations then carried on, the monthly returns were between 40 and 50 tons.—Capt. WATERS said that he proposed to drive up under the shale south. The same band of shale made the ore, or Roman vein, in Roman Gravels. The first and second north veins will be the same as that which they will meet with in the Wood shaft.

The CHAIRMAN said that with such a body of lodes it was not too much to say that the prospects of this company could not be surpassed.—Mr. CHARLTON said that the opinion of Capt. Waters having been so fully verified in Tankerville gave additional value to it as regards West Tankerville.—Capt. WATERS said his opinion was based upon acknowledged facts, and from the long experience he had had in the district.

Mr. WILLIAM MICHELL said that although he had always entertained a favourable opinion of the mine, his inspection of it to-day had caused him to be agreeably surprised. The discovery of lead at only 12 fms. from surface augured well for the future of the mine. Comparing the quality of the ore with that of the adjoining mine, Roman Gravels, it is identical; and seeing that the levels of that mine were driven up to the boundary, it really appeared likely that West Tankerville will add another good mine to the district.

Mr. E. COOKE said he was on the mine a few weeks since, when he saw only the lode in the deep adit; but he thought it was sufficiently good for him to considerably increase his interest. Since that time the important discovery 12 fms. from surface had been made, which, of course, already added considerably to the value of the mine.

The CHAIRMAN mentioned that from the shallow level a small adit had been run out to the west for 8 or 10 fms., in a lode containing a considerable quantity of carbonate of lead; this was parallel to the lode upon which the recent important discovery had been made.

Mr. E. COOKE said it was not an unimportant fact that the Roman Gravels levels were driven close up to the West Tankerville boundary.

After some further discussion a unanimous vote of thanks was passed to Capt. Waters.

More than one-half of the shares in the mine were represented at the meeting. A vote of thanks to the Chairman and directors concluded the proceedings.

NEW WHEAL CHARLOTTE (ST. AGNES).

The adventurers of New Wheal Charlotte, situated about 1 mile from the north coast of Cornwall, and about 1½ miles from St. Agnes Church town, dined together at the account-house on the mine, and talked over the prospects of the property as at present developed. The mine was previously worked 30 fms. below adit, and 15 years since was abandoned, in times when machinery was not so powerful as now. A company was formed several months since for the re-working of the mine, and among the adventurers are several most influential gentlemen of the county. For seven months the present company has carried on operations. Good and sufficient machinery has been erected, and the mine cleared of water and opened out during that time. During the last three weeks 2 tons of tin have been stamped, and it is now ready for sale. From a perusal of the after-dinner speeches of practical men, it will be seen that the most sanguine hopes are entertained of its prospects. Before the dinner Mr. John Richards, the secretary of the mine, and other gentlemen, went below and inspected all the workings.

The dinner was attended by a thoroughly practical company. Mr. John Hitchins occupied the chair, and amongst those present were—Messrs. P. Smith and W. Tregellas, from London; Tregonig, Truro; M. T. Hitchins, A. Williams, W. Dingley, James (engineer), Isaac Rowse, Captain Tonkin (Dolcoath), Davey and Polkinghorne (Wheat Hill), Rogers, Davies, Andrews, Messrs. W. Argall (Great Wheal Vor), Elisha Tregellas (purser of New Wheal Charlotte), Burgess (Perran Trevose), E. C. Tonkin (Truro), Steven, &c. The after-dinner proceedings were principally devoted to conversation on mining in general, and Wheal Charlotte in particular. "The Queen" was the only outside toast.

Proposing "Success to New Wheal Charlotte," the CHAIRMAN pleaded guilty to believing it was a good speculation, and was pleased with what he had seen above and underground that day. Good machinery had been put up at surface, and beneath the work seemed to be laid out with fair system. "Good Landlords and Good Adventurers" was the next toast, and he remarked that although in former years the Duchy had dealt very hardly with adventurers they had recently turned the corner, and now showed every wish to deal liberally with people desirous of laying out their capital in mining on Duchy right. In this respect they showed a good example to many landlords, whose hard dealing had driven capital out of the country to foreign mines that were now—the Chill mines, for example—having a prejudicial effect on the mines of Cornwall.

Mr. ANTHONY WILLIAMS responded to the latter toast, speaking hopefully of the new venture, and expressing a desire to see Old Wheal Charlotte being reopened, with such good prospects.

Capt. TONKIN and Mr. E. TREGELAS responded to "The Local Agents." Capt. Tonkin felt obliged for the confidence shown in them, and said they would make every attempt to retain it. He detailed the work that had been done on the mine. When they commenced they found the mine choked. They had erected a pumping engine, and drained the mine very considerably, besides clearing out several fathoms for future work. A winding and steam-engine had also been erected. Attached to the latter were 16 heads of stamps, and they had already stamped nearly 2 tons of tin. Three or four of the old pitches were very good, and in one the lode was rich; if going down they found a lode half as rich he should be satisfied. This lode was worth ½ ton to 1 ton per fathom. They were not rich, nor had they a rich mine, but they had a very promising mine. He was not one who believed that the old miners left a good lode at the bottom, and therefore he did not expect it when they cleared it down to 30 fms., but he believed not far below they would meet with a good lode. He did not pretend to see through water or the earth, but they must take a gloomy view of matters, and as showing the value of this advice he mentioned that he lately dined with a gentleman who lost 100,000*£* by taking this gloomy view.

Mr. TREGELAS was glad to see so many gentlemen meeting under such pleasant auspices. At the surface they had seen specimens which would give every satisfaction. He felt fully persuaded that New Wheal Charlotte would make a good mine, and would soon turn out profitable to the adventurers. He had every hope that it would make one of the best mines ever opened up in the district. In proposing "The health of the Chairman," Capt. TONKIN spoke highly of Mr. Hitchins, of his ability, and of his uprightness as an Inspector of mining properties.

Mr. HITCHINS, in acknowledging the toast, said that he had been engaged in various parts of the world, and wherever he had been employed he had always done his best, and was glad that his best had been accepted as honest. From what he had seen underground that day he believed the present to be a very legitimate undertaking. Mining was very properly called an adventure, and much, in many cases, depended upon good management. He certainly had been well pleased at the appearance of their lodes, and he very much liked the quality of the ore. Curnow's pitch, he believed, was as valuable as it was said to be, and he believed that all their prospects were well founded. Looking, too, at the surface works—at the machinery which had been erected, and its cost—looking at the way in which they had gone to market, he should go back to London able to give the people there a very favourable account of the prospects of the mine. He should be able to report, too, on the great confidence he had in the local management.

"The Representatives of the Committee from London" was next given.

Mr. SMITH, responding, said he had very great confidence in the originators of the new work, and after the recognition that had been made of the ability and character of the local agents, he should go back to London fully satisfied that whatever could be done would be done, and that whatever was done the shareholders would get the legitimate benefit of it. When this was the case those who took up mining shares would have no cause of complaint if the undertaking did not turn out successfully. (Hear, hear.)

"Continuation of the Good Price of Tin," was next drunk to, and this was followed by the healths of Dr. Whitworth and Mr. Tregonig.

Dr. WHITWORTH remarked that having known the district for 22 years, he felt convinced that with an equal amount of capital it would make returns equal to those that had been made in the Gwennap district, and were now being made in the Camborne district. It was one of the oldest districts in the county, and deserved attention. Old Wheal Charlotte, close by, made good returns, and was stopped in consequence of the conduct of the lords. It was explained that this did not apply to Mr. A. Williams, who had always dealt most liberally with adventurers.

Mr. TREGONIG pronounced the ore raised in the mines to be as good a specimen as could be produced in the county. (Hear, hear.) If the lords were to unite, Old Wheal Charlotte might easily be worked.

"Neighbouring Mines" was responded to by Mr. ARGALL (Great Wheal Vor), who observed that, from what he had seen of the mine that day, he was persuaded that they had something tangible to go upon. Tin now was high, and they would wish that it should always remain at a tolerably fixed price, between 70*£* and 80*£*. The district was a good one, and the investment appeared very promising. Having invested in mines under the cost-book and limited liability principles, he was in favour of the former. Statistics that he had kept for years showed that Cornish mining paid. Taking the good and the bad together, 5 per cent. was paid on the clay, whilst in foreign mines it was only 2½ per cent. Every means should, therefore, be taken to divert into Cornwall and D. von the large amount of capital now invested out of the country.

The health of the Engineer was also drunk, and that gentlemen said the en-

gine was capable of working down to 140 fathoms, and would work 32 heads of stamps. The water was easy.

Capt. ANDREWS believed that New Wheal Charlotte would pay a dividend before anything like the sum named was laid out. It would pay, in his opinion, before 300*£* was sunk, for prettier specimens of ore than those shown he had not seen. Its present appearance warranted the hopes that were held out, and the adventurers would be repaid their outlay.

Capt. DAVEY and Capt. STEVENS also believed in the success of the new undertaking.

EAST CARADON MINING COMPANY.

A meeting of adventurers was held at the office of Mr. Harding, Salisbury, on Wednesday. Mr. Alderman FAWCETT presided, and among those present were the Mayor of Salisbury, the Mayor of Liskeard, Capt. Trevelyan, Capt. Truscott, Mr. Jas. Charles, Mr. Ewer, Mr. Fisher, Mr. T. Jarman, Mr. Heyward, Mr. Pethbridge, &c.

The minutes of the last meeting having been read, the following report was presented from Capt. Truscott:

Caunter lode, in the 130 east, is 1½ ft. wide, spotted with mudi and copper ore. In the 110 east the lode is similar in size and character to that in the 130. Child's lode, in the 100 west, is producing saving work for copper ore. In the 90 east it is worth 20*£* per fm.; west, 5*£* per fm. Seccombe's lode, in the 80 east, is 1½ ft. wide, spotted with mudi and copper ore. The north engine-shaft is being sunk on Marke's lode below the 40; down 3 fms., where the lode is 3 feet wide, composed of friable quartz and peach, intermixed with mudi, and a little copper ore, of a very promising character, in a good channel of granite, favourable for the production of large deposits of copper ore. We have resumed the drivage west No. 2 lode, which at present is in a disordered state. Crosscuts: In the 50 north the ground is hard, and in the 80, south of Child's, the ground is favourable. The prospects of the mine continue favourable, more particularly as the northern part gets further developed.

The statement of accounts for March, April, and May showed the following results:—Balances to the credit of adventurers at the date of the last account, 1894, 6s. 3d.; sale of March ores, 837*£*, 1s. 1d.; ditto May, 1139*£*, 9s. 3d.; total, 4727*£*, 2s. 1d.—Amount of March cost, 816*£*, 1s. 2d.; April, 808*£*, 10s. 2d.; May, 768*£*, 6s. 8d.; lords' dues, 137*£*, 2s. 9d.; travelling expenses, 2*£*; printing, stamps, &c., 7*£*, 1s. 3d.; balance to the credit of the adven-

turers, 218*£*, 1s. 8d.; total, 4727*£*, 2s. 1d.

The CHAIRMAN remarked that they had increased their balance considerably, which was very encouraging. Capt. TREVELYAN complained that information had been withheld with regard to the 80. In his opinion, it was one of the "kindest" parts of the mine, and the works ought to be extended in that direction?—Capt. TRUSCOTT denied having withheld any information, and said the eastern end was being worked because it was the "kindest" of the two.

Capt. TREVELYAN contended that there were good indications on the other side, and, so much money having already been spent there, the shareholders ought to have been supplied with more information. Things were not sufficiently foreshadowed in Capt. Truscott's reports. And why was not more said about the improved prospects of Seccombe's lode?—The CHAIRMAN said Capt. Truscott was in favour of not doing too many things at once. The committee had not lost sight of the value of the western drive, the works on which it was intended to resume as soon as possible.

Capt. TREVELYAN did not find particular fault with what had been done; his contention was that the shareholders ought to be better informed as to their future prospects.

The report and statement of accounts were ultimately passed, and the report was ordered to be printed, and a copy to be sent to each shareholder.

The CHAIRMAN then moved, and Mr. JARMAN seconded,—"That in consequence of the extension of the works in the mine the future monthly inspections be extended over two days—the first Wednesday and following day in each month—on application to the purser for an order of inspection."

The CHAIRMAN said there had been two or three applications for a second day's inspection, and he had requested the purser to give the necessary orders. As they had three distinct mines, it was impossible to make a proper inspection in one day. Capt. TREVELYAN had never heard of a more absurd proposition. Why should the mine not be thrown open to inspection at any time, as was the case with other mines? The East Caradon was not a "sensation" mine; it was properly ventilated, and of what, then, were they jealous or afraid? To say that a man should not be allowed to see his property more than once a month was most preposterous. His own opinion was that if the mine were thrown open it would have a beneficial effect upon the property. The shareholders were as much entitled to an inspection of their property as agents were to be in receipt of information. It was allowed in other mines, and why should East Caradon be placed in a singular position? If they did not throw the mine open he believed their shares would remain as they were, instead of going up to three times their present price, which was more like their value. It was one of the best sets in the county, and ought to be developed. There was a little prejudice against him, he knew, but he did not care for that. All he asked was that the business might be legitimately carried on. He begged to move, as an amendment to the resolution, that on application to the purser the mine be thrown open to inspection at all reasonable times.

The CHAIRMAN was pleased to be told that the East Caradon was an exclusive mine?—What should the East Caradon be an exclusive mine?—Was it of greater importance to the others in the county, one and all of which were thrown open? He could assure the meeting the prohibition was commented upon very unfavourably in his own neighbourhood. The mine was spoken of as a "close corporation," because the shareholders were deprived of the advantage of any improvements that took place from one month to another; they, in fact, were at the mercy of conflicting reports for the whole term of the moon, a position that was both invidious and improper. At the same time, in supporting a motion for throwing open the mine he did not object to a discretionary power being vested in the committee.

The CHAIRMAN said every discovery that had been made had been promptly notified to the shareholders.—Mr. JARMAN said that somehow or other any discovery in the East Caradon Mine was known in London within two or three hours. He did not see, therefore, how the managing committee could be described as a "close corporation."

The MAYOR of Liskeard said the complaint was that the information was sent to London before it was circulated in the immediate neighbourhood of the mine. He held his original share, and was not speaking with any view to speculate.

The CHAIRMAN said he would propose that if Captain Trevelyan would withdraw his amendment the subject should be taken up to serious consideration, and an arrangement might be come to that would be satisfactory to all parties.

Capt. TRUSCOTT offering no objection, this was agreed to, and a vote of thanks to the Chairman terminated the proceedings.

PHENIX MINES—Testimonial to Mr. West.—As a mark of the respect entertained by the miners and others for their engineer, Mr. W. WEST, a handsome timepiece was presented to him as a testimonial on Saturday last. At a time when most of the shareholders had lost hope, Mr. West acquired the majority of shares, which gave him the power to have the property developed in his own way, the result being that the property is now in an exceedingly prosperous condition. The subscription was limited to 6*£*, for underground and 1*£*, for surface hands, the object being rather to show the good feeling of the workpeople than to collect money. The presentation was made by a committee (introduced by Capt. Simmons) consisting of Messrs. R. D. Williams, R. Chapman, L. Harper, W. Roberts, J. Williams, W. Stephens, J. Warwick, L. Greet, A. Hosken, J. Lash, J. Ogle, and J. Carpenter. The timepiece was provided with a handsome silver escutcheon to bear a suitable inscription, and in presenting it Mr. R. D. Williams read an admirable address. In acknowledging the compliment, Mr. West expressed the hope that in Phenix they had a mine to provide for them and theirs all their lives. He had had many difficulties in bringing it out, but they had stuck by him like men. Most of them, however, were originally Western men, and he hoped they and their families would find themselves thoroughly comfortable in the East. It should not be his fault if they were not. That they were careful, steady men was proved by the very few accidents that occurred. Still he exhorted them never to neglect taking proper precautions. He was quite as desirous that the mine should be worked safely and comfortably as profitably, and had ordered each pair to be provided with copper-ended tamping bars, and was endeavouring to make the necessary arrangements for miners' cottages.

CHEMICALS AND MINERALS.—(Messrs. J. Berger Spence and Co., Manchester).—Soda: Crystals continue in good demand, at 4*£*, 2s. 6d. to 4*£*, 3s. Cream candle meets with buyers at 12*£*, 10s. for 60 per cent.; and white, at 13*£*, to 13*£*, 10s. Bi-carbonate, at 9*£*, 10s. and 15*£*, per cwt. Sulphurite of soda, 3*£*. Nitrate of Soda remains at last week's quotations of 14*£*, 10s. Potash: Murates are firmly held at the advance reported last week—5*£*, 15s. to 9*£*, 10s.—Saltpetre: Few sales, at 2*£*, to 2*£*, for refined, and 2*£*, to 2*£*, for foreign.—Alum: Very active. Loose lump at 6*£*, 5*s*, and 7*£*. In export barrels; ground, at 7*£*.—Ammonia: Brown sulphate is quieter than usual, but with unchanged prices—13*£*, to 13*£*, 10s. White and grey are in better enquiry, at 13*£*, 10s. to 16*£*, 5*s*.—Copperas: Dry in steady demand, at 5*£*. Green and rusty at 5*£*, to 5*£*, 5*s*.—Arsenite: At 6*£*, 15*s*, to 7*£*, 5*s*, for fine powdered.—Acid: Tartaric at present maintains the advance of 4*£*, but it is expected, the season being now nearly over, the prices will soon give way. Oxalic in request, at 7*£*, 10*s*. Sulphurite at 3*£*, 10*s*, per ton.—Magnesia: Epsom salts at 4*£*, 10*s*, to 4*£*, 12*s*, 6*d*, for refined.—Oils: At 4*£*, to 5*£*; pure white Norwegian cod liver oil, at 9*£*, 10*s*, per barrel.—Pitch meets with a good market, and holders generally ask 17*£*.—Benzole continues active, with an upward tendency in prices—2*£*, 6*s*, to 2*£*, 9*s*, for 50 per cent. is asked, and the quotations remain at that figure.—Guano: Best Peruvian 13*£*, 7*s*, 6*d*.—At 13*£*, 10*s*, for fine powdered.—Acid: Tartaric at present maintains the advance of 4*£*, but it is expected, the season being now nearly over, the prices will soon give way.

Oxalic in request, at 7*£*, 10*s*. Sulphurite at 3*£*, 10*s*, per ton.—Magnesia: Epsom salts at 4*£*, 10*s*, to 4*£*, 12*s*, 6*d*, for refined.—Oils: At 4*£*, to 5*£*; pure white Norwegian cod liver oil, at 9*£*, 10*s*, per barrel.—Pitch meets with a good market, and holders generally ask 17*£*.—Benzole continues active, with an upward tendency in prices—2*£*, 6*s*, to 2*£*, 9*s*, for 50 per cent. is asked, and the quotations remain at that figure.—Gu

shaft, is suspended for the time, and the men put to cut ground in the 75, in order to fix rods from Bueno Amigos to Morris's shaft. The lode in the 25, east of Palgrave's shaft, yields $\frac{1}{2}$ ton per fathom; and in the 25 west 2 tons per fathom—in each of these cells it is regular, compact, and solid.—Shafts and Winzes: The lode in Bueno Amigos engine-shaft, below the 100, has fallen off in size and value during the past week, and is now yielding $\frac{1}{2}$ ton per fm. Nieto's winze, below the 75, is rather wet and troublous for sinking. In Topete's winze, under the 90, the lode is compact and solid, yielding 2 tons per fathom. The lode in Castelor's winze, under the 65, also produces 2 tons per fathom; this winze is situated west of San Carlos shaft, and in advance of the 75 end west. The weekly weighings of ore were kept up very regularly in the past month, and the stopes are looking much as usual, enabling us to estimate the raisings for July (five weeks) at 450 tons. The machinery is in good working order, and all surface operations are going on with their usual regularity.

LINARES.—July 6: West of Engine-Shaft: In the 85 fathom level, west of Warne's engine-shaft, the lode is large, containing a few spots of ore. In the 75, west of Crosby's shaft, the lode is small and unproductive. The 65, west of San Francisco shaft, is opening up good tribute ground; the lode yields 2 tons per fathom. The lode in the 65, east of the same shaft, is compact and solid, and looking very kindly, yielding 2 tons of lead ore per fathom. There is no improvement in the 55, west of the above shaft. In the 55, east of ditto, the lode is disarranged and poor. The lode in the 45, east of San Francisco shaft, has fallen off a little since our last report, and is now yielding 1 ton per fathom. In the 31, east of ditto, the lode is very small, and no value. In the 25, east of ditto, the lode is small and poor.—Shafts and Winzes: In Crosby's shaft, below the 75, the ground is easy for sinking through, but the lode is quite poor. No. 175 winze, below the 55, is going down in a productive lode, worth 2 tons per fathom.—Los Quinientos: In the 55, east of Taylor's engine-shaft, the lode is large, and yielding good stones of lead ore. In the 55, west of this shaft, the men have been engaged cutting a plait and barrow-road. The lode in the 45, west of ditto, is large and strong, yielding 1 ton per fathom, but the ground is very hard for driving. In the 45, east of ditto, the lode is looking very kindly, and yields $\frac{1}{2}$ ton per fathom. In the 32, east of Addis's shaft, the lode has very much improved, and now yields 1 ton per fathom. The lode is quite unproductive in the 32, east of San Carlos engine-shaft; and in the 32, west of ditto, the lode is yielding a little lead, but not enough to value. The ground in the 32 cross-cut, west of Cox's shaft, is very hard for driving through. In the 32, south of Henry's shaft, we have struck into old work.—Shafts and Winzes: San Carlos engine-shaft, below the 32, has reached the requisite depth for the 45, and we have commenced to drive. The lode in Addis's shaft, below the 32, is looking well, and yielding $\frac{1}{2}$ ton per fathom. Cox's shaft, under the 32, is going down in a hard granite. In Jurado's winze, under the 32, the lode yields 3 tons per fathom; we expect to hole this in the course of a few days. The stopes yielded

the estimated quantity of ore in the past month, and are looking moderately well at present. The machinery is in good working order, and the surface operations are going on very regularly. We estimate the raisings for July (five weeks) at 325 tons.

ALAMILLOS.—July 5: The 5th level, east of San Rafael shaft, is opening good tribute ground; the lode is large and strong, yielding $\frac{1}{2}$ ton per fathom. In the 5th level, west of this shaft, the lode is large, and of a good appearance, yielding 1 ton per fathom. The 4th level, west of Martin's shaft, was started a few days ago; we expect it to open some good ground; the lode yields 1 ton per fathom. The lode in the 4th level, east of La Magdalena shaft, is small and poor. In the 5th level, east of the same shaft, the lode yields $\frac{1}{2}$ ton per fathom. In the 5th level, east of Taylor's engine-shaft, the lode has a kindly appearance, and yields $\frac{1}{2}$ ton per fathom. Great progress has been made in the 6th level, west of Taylor's engine-shaft, through a productive lode, yielding at present 1 ton per fathom. In the 6th level, west of San Andriano shaft, a little improvement has taken place; the lode is well defined, and yields $\frac{1}{2}$ ton per fathom. The 4th level, east of ditto, is unproductive. In the 20 level, west of Cox's shaft, the lode is large and strong, but less productive, yielding $\frac{1}{2}$ ton per fathom. The lode in the 2d level, east of San Victor shaft, is large, and of a good appearance, yielding $\frac{1}{2}$ ton per fathom. In the 2d level, west of this shaft, the lode is unproductive at present, and the ground hard for driving. In the 3d level, east of the same shaft, the lode yields a little lead, but not enough to value. The 3d level, east of San Victor cross-cut, is still in the main slide, which has disturbed the lode. In the 3d level, west of San Carlos shaft, in old workings. In the 2d level, west of ditto, the lode produces a little lead, but not enough to value. The 2d level cross-cut, south of Addis's shaft, has intersected the main lode; it looks well, and yields $\frac{1}{2}$ ton per fathom. The 3d level, west of Crosby's cross-cut, is passing through a hard bar of ground; lode small. In the 2d level, east of Swaffield's shaft, the lode is just the same as last reported, yielding $\frac{1}{2}$ ton per fathom. The 2d level, west of Swaffield's shaft, is yielding some fair stones of lead, about 1 ton per fathom.—Shafts and Winzes: In Taylor's shaft, sinking below the 6th level, there is no change to mention. The lode in Henry's shaft, under the 5th level, is being sunk in advance of the 6th level, east of Taylor's shaft, the lode yields 1 ton per fathom. Victor's winze is holed to the 2d level; the lode here produces 1 ton per fathom. The machinery throughout the mine is in good working order, and the surface operations are being carried on with their usual regularity. We estimate the raisings for July 300 tons.

[For remainder of Foreign Mines, see to-day's Supplement.]

LONDON GENERAL OMNIBUS COMPANY.—The traffic receipts for the week ending July 10 was £12,013.7s. 2d.

The Brynambor Lead Mine Company (LIMITED).

CAPITAL £20,000, IN SHARES OF £1 EACH.

Deposit 5s. per share on application, 5s. on allotment, and the balance by two equal instalments, at intervals of three months.

Certificates for such shares may be exchanged for share warrants payable to bearer at any time when fully paid-up.

DIRECTORS.

C. CAMPBELL DOWNES, Esq., C.E. (Associate Inst. Civil Engineers; Director of the Phoenix Silver-Lead and Blende Mining Company, Limited), 12, Coothall-court, E.C.

DANIEL GREEN, Esq. (Director of the Tavarone Mining Company, Limited), 11, Finsbury-circus, E.C.

GEORGE BRAND, Esq., Park-road, Twickenham.

ALFRED BEALE ROCKE, Esq., United University Club, Pall Mall.

BANKERS—THE METROPOLITAN BANK, 75, Cornhill, E.C.

SOLICITORS—Messrs. SHEPPARD and RILEY, 38, Moorgate-street.

SECRETARY—H. W. MATHIAS, Esq.

OFFICES,—174, GRESHAM HOUSE, OLD BROAD STREET, E.C.

This company is formed to work a mine in Cardiganshire, near the celebrated Nant-y-Mwyn lead mine (which has paid over £750,000 profit). It is already opened out, and rich in lead ore, as well as provided with ample water-power, pumping machines, crushing mills, and other plant, and is in a condition to make regular and profitable sales of ore immediately.

Prospectuses containing full particulars and forms of applications for the shares now being issued should be applied for at once to the bankers, or to the secretary, at the offices of the company.

Staffordshire Brick and Tile Company (LIMITED).

Incorporated under the Companies Acts, 1862 and 1867, whereby the liability of each shareholder is limited to the amount of his shares.

CAPITAL £12,000, IN 6000 SHARES OF £2 EACH.

£1 to be paid on application, and £1 on allotment.

DIRECTORS.

WILLIAM LANPHIER ANDERSON, Esq., Clarendon House, Caterham, Surrey.

WILLIAM CARPENTER, Esq., Euston-square.

JAMES CHAPMAN, Esq., Walthamstow.

(With power to add to their number.)

BANKERS—THE ALLIANCE BANK, Bartholomew-lane, E.C.

SECRETARY—MR. ALFRED LAWRENCE.

OFFICES,—2, BUCKLERSBURY, E.C.

The Staffordshire Brick and Tile Company has been formed to purchase and extend the iron clay works of Messrs. Arnott and Co., at Willencote, Tamworth, also the London depot. The clay land covers an area of about 15 acres, and the deposit of clay is 60 yards in depth. In some parts more, and the lease from the freeholders is held for the term of 27 years. The quality of the clay, combined with the capabilities of the machinery and plant, guarantees the supply of large quantities of goods of various descriptions, as plain and channelled bricks, plain and fancy tiles (for roofing and paving), drain-pipes, &c., for which there is always a ready market. The bricks are used for purposes in which great strength is required, as they bear a pressure of from 90 to 100 lbs. per square inch. The channelled bricks are especially adapted for the paving of stables, as their hard and non-absorbent quality keeps them clean. The same may be observed of the garden-edgings made of this clay, which are in considerable demand.

The estimates upon which the operations of the company are based are for supplying the building trades at prices from 8 to 10 per cent. below the usual prices; but even at these prices the rate of profit is such that a dividend of 15 per cent. upon the capital can be at once promised, the manufacture being in full operation. This is, however, a minimum dividend, inasmuch as the deposits are capable of extension at a small outlay, and it is intended so to ex-

tend them as to ensure a dividend at the rate of at least 20 per cent. per annum on the capital.

The company is incorporated with limited liability, with a capital of £12,000, in 6000 shares of £2 each, paid up, so that no liability attaches to them.

An advantageous contract has been entered into on behalf of the company for the purchase of the leases of the lands and the London depot, and of the machinery, buildings, plant, and stock on or at the works at Willencote, where the manufacture is being carried on, dated July 5, 1870, and made between Walter Rymer of the one part, and the company of the other part.

A great part of the shares being already taken, the subscription-lists will be kept open for a week only. An early application, therefore, is necessary to ensure an allotment.

Applications for shares, addressed to the directors in the usual form, and accompanied by cheque or post-office order for the deposit of £1 on each share, may be made to the Alliance Bank (Limited), Bartholomew-lane, London, E.C.; or at the offices of the company, No. 2, Bucklersbury, London, E.C., where the Articles of Association may be seen, and prospectuses and other information obtained.

Should the whole number of shares applied for not be allotted, the deposits will be promptly returned.

NOTICE.

STAFFORDSHIRE BRICK AND TILE COMPANY (LIMITED).

Notice is hereby given that the LIST OF APPLICATIONS FOR SHARES will CLOSE on WEDNESDAY, the 20th, for LONDON, and THURSDAY, the 21st, for the COUNTRY.

By order, ALFRED LAWRENCE, Secretary.

PORTABLE ENGINES, FROM 4 TO 25-HORSE POWER.

THRASHING MACHINES,

Single, Double, and Treble Blast, with Patent Rolled Steel Beater Plates, and all other Recent Improvements.

CLAYTON & SHUTTLEWORTH,

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CATALOGUES ON APPLICATION, FREE BY POST.

OSLER'S CRYSTAL GLASS CHANDELIERS,

WALL LIGHTS and LUSTRES for GAS and CANDLES.

CHANDELIERS IN BRONZE AND ORMULU.

MODERATOR LAMPS, and LAMPS FOR INDIA.

TABLE GLASS of all kinds. ORNAMENTAL GLASS, English and Foreign.

Mess, Export, and Furnishing Orders promptly executed.

All articles marked in plain figures.

LONDON: Show Rooms, 45, Oxford-street, W.

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Established 1807.

WATSON BROTHERS,
MINING AGENTS, STOCK AND SHARE DEALERS, &c.
1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.

SATURDAY.—The demand to-day is chiefly for East Grenville, Van Consols, Australian United, and East Lovell; Tankerville shares weaker. Van Lovell, 35 to 36 ex div.; Drake Walls, 25s. to 27s. 6d.; Great Vor, 11s. to 13s.; Van, 77 to 79; West Chilverton, 53 to 54; Grenville, 21s. to 24s.; Pacific, 8s. to 8s. 6d.; Don Pedro, 2s. to 2s. 6d.; Tankerville, 16s. to 17s.

MONDAY.—East Grenville, Australian United, Van Consols, and East Lovell shares are again in demand. East Grenville, 3s. to 4s.; Australian United, 2s. to 2s. 6d.; Van Consols, 3s. to 3s. 6d.; Australian United, 2s. to 2s. 6d.; Tankerville, 16s. to 17s.; Providence, 38 to 40; Drake Walls, 22s. 6d. to 25s. 6d.; Tankerville, 16s. to 17s.; Drake Walls, 22s. 6d. to 25s. 6d.; Tankerville, 16s. to 17s.; Pacific, 8s. to 8s. 6d.; Seton, 34 to 36; Drake Walls, 24s. to 26s.; Pacific, 7s. to 7s. 6d.; Chontales, 16s. to 20s.; Tankerville, 16s. to 18s.; Cook's Kitchen, 19 to 21; Great Laxey, 18 to 19; East Caradon, 4s. to 5s.; Chilverton Moor, 4 to 4s.; West Maria, 2s. to 2s. 6d.

TUESDAY.—Market very flat. Pacific receded to 7, sellers. Tankerville and East Lovell also flat. Van Consols and Australian United enquired for. Pacific, 6s. to 7; Tankerville, 16 to 16s.; East Lovell, 32s. to 33s., ex div.; Van Consols, 3s. to 3s. 6d.; Australian United, 2s. to 2s. 6d.; East Grenville, 3s. to 3s. 6d.; Providence, 38 to 39; Van, 76 to 78; West Chilverton, 53 to 54; Chontales, 16s. to 20s.

FRIDAY.—Settling-day. Market very quiet, and quotations merely nominal. West Chilverton, 53s. to 54s.; Van, 78 to 78; East Lovell, 33 to 34; Tankerville, 16s. to 16s.; Van Consols, 3s. to 3s. 6d.; East Grenville, 3s. to 3s. 6d.; Great Vor, 11 to 11s.; Pacific, 7 to 7s. 6d.; Australian United, 2s. to 2s. 6d.; Don Pedro, 2s. to 2s. 6d.

Mining Correspondence.

BRITISH MINES.

ABERDAUNANT.—E. Mumford, July 14: The lode in the No. 2 adit is composed of barytes, carbonate of lime, gossan, and fine stones of lead ore, it is a kindly looking lode; there is every indication of a further improvement, which we may expect daily. The cross-cut north to cut the run of ore ground under the 10 is looking very promising, the composition of it is as follows: carbonate of lime, blende, gossan, and stones of lead ore; judging from the present character of the lode here we may expect an early improvement. There is an improvement in the back of No. 1 adit, worth at present 45 cwt., of dressed lead per fathom. The stopes in the bottom of the 10 are without alteration, worth, or yielding, 20 cwt. of lead ore per fathom. We are pushing on with the alterations to the dressing floors with energy, but owing to the long turn of dry weather our surface water supply has decreased, therefore our progress in dressing has been impeded, or a parcel of lead would have been sent to market before now.

ASHSETON.—W. T. Harris, July 13: The engine-shaft has been squared down to the bottom of the deep adit level, and we have also cut plat in readiness for sinking below the level, which we purpose doing for about 2 fms., preparatory to dividing, setting ladders, penthouse, &c. The lode in the level south yields a good supply of lead, and very promising for an improvement. The stopes in the back of this level produce lead as last reported. Gundry's shaft is 10½ fms. deep; the ground is easy for progress, but the water is very troublesome. Rudge's Shaft: Satisfactory progress is being made, and the ground congenial for lead. The Cim Level: The lode is a strong and promising one, and slightly impregnated with lead. Surface operations are progressing with usual despatch. BALLACORKISH.—Capt. Trewren, July 8: In the adit level driving north of the engine-shaft we have met with a slide or flookan crossing the end, which has thrown the lode out of its former direction, but hope soon to fall in with it again, and most certainly think we ought to be coming into close proximity with King's lode, according to the direction of that with the New Discovery lode. In driving north of the engine-shaft, in the 12 fm. level, under the adit, there is no doubt but that we are now through the great Dow vein, and intend to commence driving east, so as to intersect the New Discovery lode in this level as quickly as possible. In the engine-shaft the ground is still favourable, and the men are making good progress in sinking, now down between 14 and 15 fms. below the 24 fm. level.

BEDFORD CONSOLS.—J. Mitchell, July 13: In the middle adit level east of the air shaft we are driving by the side of the Gawton lode. In the cross-cut south, towards the engine-shaft lode, the joints of the killas are impregnated with mundic and copper ore, and a large stream of water is coming from the end about 2 ft. below the back. I hope the lode will soon be met with.

BLAEN CAELAN.—J. Evans, July 13: In the 10, below adit, the men are stopping down a piece of ground left standing close to the end, and which must come away before we commence to drive the cross-cut: this is yielding good lead ore, worth quite 15 cwt. per fathom. The little engine keeps out the water with much less coal now than the mine is in fork, and does its work well. The stope in the 25 east is producing 1½ ton of lead ore per fathom. There is no change in any other part of the mine. Surface operations progress well.

BLAEN-Y-GLYNN.—E. Burn, July 7: The lode in the 10 has not been taken down since my last report. The lode in the shallow adit, at Penn-y-Craig, is improving every day. I think we are not far off a good deposit of lead ore. The men are working regularly, and everything going on satisfactorily.

E. Burn, July 12: The following is our setting report:—The shallow adit to drive on the course of the lode by six men, at 5s. per fathom, stent 2 fms.; the lode has the same kindly appearance, producing spots of lead, mundic, and copper ore; the end is much easier for progress, the last fathom was set at 7s. 10s. The 10 to drive by six men, at 6s. 6d. per fathom, stent the month. The ground in this end is getting more blue, and the lode letting out more water now than at any time since we started working. I expect a

CALDBECK FELLS.—P. Hawke, R. Trewarthen, July 13: We have taken the engine-shaft men to assist in erecting balance-bob, capstan, shears, &c., preparatory to fixing 45 fms. of 15-in. plunger-lift. The cross-cut south from the engine-shaft at the 30, below adit, is progressing fairly towards the north and south lode. We have evidently struck the Silvergill lode at last in the cross-cut north from the engine-shaft, at the 20 below adit, from which good stones of purple and yellow copper ore have been obtained. We shall be able to report more fully upon this point shortly. We have not yet struck the south lode in the cross-cut at this level. The ends east and west on the north lode in the 20, at junction shaft, are worth together 10 cwt. of lead per fathom. The end west in the 10, on the north lode, is poor. We are cutting into the hanging-wall of the north lode east in the 10 to prove its value. The end south-east in the 10, on the caunter lode, towards the south lode, is worth for lead 30 cwt. per fathom. The deep adit west, on the north lode, is worth 20 cwt. of lead per fathom. The end east on the new lode, from the north lode in the deep adit, is worth 23 cwt. of lead per fathom. The north lode in the 80 west is producing lead, but little to value. We hope to weigh off 100 tons of lead and copper as the month's sampling. Unfortunately, one of the crusher rolls split in two, which has caused a loss of time in dressing. We were making an effort before this accident occurred to col. plate 120 tons.

CARADON CONSOLS.—S. Bennetts, July 12: The Clym's lode, in the 100 north, has just been seen by the west side of the cross-course, but its width or general characteristics are scarcely visible as yet, it being mixed with the cross-course. In the 90 east it is not so wide as it has been. I think the sparry cross-course lately cut in the 78 east is near this end. The same lode in the west end is looking a little better than it was last week. The No. 2 lode, in the 78 east, continues to produce about 1 ton of ore per fathom.

CARDIGAN BAY CONSOLS.—Charles Williams, July 14: Pensarn: The lode in the 10, east of shaft, is 4 feet wide, composed of spar, blende, slate, and ore throughout. The lode in the 10, west of ditto, is 5 ft. wide, consisting of spar, gossan, blende, and solid ribs of rich silver-lead ore—a very fine lode.—North Adit: The strata in this level are of the best description for producing large quantities of metal, such as copper and silver-lead ores, and the ground in the end is becoming thickly impregnated with the same.—Boundary Shaft: Rapid progress is now being made with sinking this shaft, and the lode in the bottom and underneath is worth 30c. per fathom; when the shaft is communicated with the workings below we shall be in a position to make regular and profitable monthly returns. All surface work is progressing satisfactorily.

CARN CAMBORNE.—J. Truscott, July 12: South Lode: In the 85 in driving east it is 3 feet wide, worth for tin 10t. per fathom. West at this level it is 5 ft. wide, worth 12c. per fathom; a very promising looking lode. In driving east of winze, at the 70, the lode is worth for tin 15c. per fathom for the part carried; and west, 15c. per fathom.—North Lode: In driving east, at the 85, to get under the winze, the lode is small. The winze sinking below the 70 is down 12 fms., where the lode is worth for copper and tin 15c. per fathom for the part carried. No. 1 stopes in bottom of the 60 is worth for copper and tin 15c.; No. 2, 10c.; and No. 3, 10c. per fathom. We hope very shortly to conclude an arrangement with the English Arsenic Company for the erection of calciner and dressing-floors in connection with same, great objections having been raised against building it on the mine. The delay has lessened our returns. The mine continues to open out in a satisfactory and encouraging manner.

CENF BRWYNO.—J. Pauli, July 12: On Saturday last the following bargains were let:—The 92 to drive west of shaft by four men, at 14s. per fm.; the lode here is 3 ft. wide, a little disorderly, but still yielding some good ore, and from what is seen in the level above we may fairly expect it to improve again very shortly. A stope over this level, 80 fms. east of shaft, to two men, at 3s. per fathom. A stop over ditto, 5 fathoms east of shaft, to six men, at 3s. per fm. The lode in these stokes is worth on an average 1 ton of lead ore per fathom. The 81 to drive west by four men, at 16s. per fathom; lode large, containing good branches of ore, and we now purpose driving a cross-cut north at this point to ascertain its full width and value. The stope over this level, 15 fms. west of winze, below the 68, to six men, at 6s. per fm. The stope over the same level, 5 fms. west of winze, to four men, at 6s. per fm. In these stokes the lode will average 3 ft. wide, worth 15 cwt. of lead ore per fathom. The 36 to drive east by four men, at 12s. per fathom; the lode here is 4 ft. wide, of a most promising character, and from indications we fully expect an early improvement. The late heavy rain has given us a good supply of water again, and all surface operations are being carried on with vigour.

CHIVERTON MOOR.—G. E. Tremayne, W. Bennetts, July 12: In the 105 fm. level cross-cut, south of Harris's engine-shaft, the ground continues hard for driving. The lode in the 95 west is 18 in. wide, composed of blonkan, quartz, and munderie. In the 85 west we have cut through the north part of the lode, which is 4 ft. wide, composed of quartz and blonkan, and will produce for lead 21 cwt. per fathom. Three stokes in the back of this level are worth on an average for lead 10 cwt. per fathom. The rise in the back of this level (the 85) is communicated with No. 2 winze from the bottom of the 75 west, which has well ventilated this part of the mine, and also laid open a valuable piece of lead ground for stoking from the back of the 85. No. 1 winze is sunk 2½ fms. below the 75, the lode in which is 3 ft. wide, and worth 21 cwt. of lead per fathom.—Ward's Shaft: The ground in the 40 and 55 cross-cuts north continues favourable for driving, but nothing of importance has yet been met with. The new trial shaft, east of Harris's engine-shaft, is sunk 20 fms. from surface, and commenced a cross-cut north and south, for the purpose of proving what lodes are standing in this part of the seat.

CHIVERTON VALLEY.—J. Juleff, J. Trevillian, July 14: In the 85, east of Retallack's shaft, the lode is 12 inches wide, composed of quartz, munderie, and stones of lead. The lode in the 85 west is about 12 inches wide, producing good lead work, and looking very promising. The stope in the back of the 75 is worth 6 cwt. of lead per fathom. The men are making excellent progress in slaking Trevillion's shaft. It is now 8 fms. below the 40 fm. level.

CRENNER AND WHEAL ABRAHAM UNITED.—W. Kitto, W. Thomas, W. Pauli, July 12: Wilson's Engine-Shaft: The sumpmen have finished securing the shaft and cutting ground, to bring down the main rod. It will take until Thursday next to clear the shaft and prepare to get up the old bucket-lift that fell away when the capstan rope broke; after this is effected we shall put the men to work in bearers and cistern in the 70, to fix the drawing-lift at this point.

Middle Engine-Shaft: The plunger-pole was put to work in the 170 last Saturday, and the men are now engaged in dividing and bed-planking down the whim-shaft, putting in footway, &c., which will take until the middle of next week to complete. The ground in the 60 cross-cut, driving north from Gard's shaft, is of the same character as it was previous to the cutting of the lode referred to in our report last week. There is no change in the 110 cross-cut north from the middle shaft-shaft. The ground is more favourable for driving in the 120 cross-cut, south of Woolf's shaft. In the 90 end, driving east of the 120 cross-cut, south of Woolf's shaft, in the 90 end, driving east of Woolf's shaft, the lode has improved, now 2 ft. wide, producing saving work for copper, having a kindly appearance for further improvement. All other tutwurk operations are without change. After our copper ore sampling is over (which will be this day week) we shall begin to draw to surface some tin-stuff. We are engaged in clearing and curing the shafts and levels as usual.

BARKELL LEVEL.—July 13: The lode in the 120 yard level, driving east of cross-cut, at Trustec's shaft, on the new vein, is about 12 in. wide, composed of clay, and producing some good stones of lead ore; the ground is a little more favourable for driving than it has been of late. In the 120, west of cross-cut, the lode is 3 ft. wide, consisting of clay, limestone, and yielding solid lumps of lead ore, looking promising for further improvement soon. The 80 cross-cut is being driven south from Trustec's shaft towards the new vein; the ground at this point is favourable for progress. Good progress is being made in driving the cross-cut south from the 170 on the old Pant-y-Go vein towards Trustec's shaft and the new vein. The lode in the 116, north of north shaft, on Pantyffrith vein, is about 18 in. wide, composed of spar, and producing stones of lead ore—looking promising. There is no other change to notice in any other part of the mine since reported last week.

DEVON AND CORNWALL.—E. James, July 13: There is no material change in this mine since last report. We are still pushing on the 22, west of engine-shaft, but have not cut any ore in this level as yet to value; driving at 6s. per fathom. In the adit level, driving west of this shaft, the lode is 2 ft. wide, composed of killas, quartz, munderie, and spots of ore; driving at 5s. per fathom. The lode in the rise in the back of the adit level is 3 ft. wide, still very promising, producing munderie, capel, quartz, and good stones of copper ore. The tribute pitch in the back of the 22 is a little improved since last Friday. The men are working well, and will, I hope, earn good wages.

EAST CARY BREA.—John Rodda, July 13: There is no change in the mine since last week, except in the 80, east of Buckley's shaft, where the lode has improved, and is now worth 2 tons of copper ore per fathom.

EAST POOL.—W. S. Garby, J. Maynard, J. Hosking, July 11: Great Lode: The 180 is driven east of the cross-cut 2 fathoms, and is worth for tin 20t. per fathom. It is also driven west 2 fathoms, and is worth there for tin 18c. per fm. The lode is still free from wolfram. The lode, which is 6 feet wide, leaves more lode to the north and south of it. The 170, east of the cross-cut, is worth for tin 15c. per fathom. The 170, 10 fathoms west of the cross-course, is worth for tin 12c. per fathom. There are three stokes working in the back of this level; two east of shaft, worth 20t. per fathom each stoke, and one west, worth 14c. per fathom. We have set a winze to sink in the bottom of the 170, opposite the cross-course by six men, to communicate as quickly as possible with the 180. The 180 is driven south of the western end 10 fathoms; no lode yet intersected. There are two stokes in the back of this level worth 20t. per fathom each stoke. The 180 is driven east of winze 4 fathoms, and is worth for tin 10c. per fathom. There are two stokes in the bottom of this level, east and west of the winze, worth 15c. per fathom each stoke. The 150 fm. level cross-cut, on the cross-course, is driven in fathoms south of the lode; the end is in the killas still, and hard. The winze sinking below the 130, on Price's lode, is down 11 fathoms. We are sinking on the north part of the lode, which is worth for tin and copper 10c. per fathom.—South Lode: We are driving west from the bottom of the winze, 7 fathoms below the 130, in order to communicate to the stope east of the cross-course; the lode here is worth 18c. per fathom for tin and copper. The 130 east, which is worth 10 per fathoms, is at present suspended until this ground is communicated. Two stokes in the bottom of the 130, west of the cross-course, are worth for tin and copper 25c. per fathom each stoke. To facilitate the working of the lode at the 130, we have purchased a small four-horse power steam-engine, which we are now preparing to fix there to draw the stuff from below that level, hoping it will supersede economically the use of manual labour. We have had a serious accident at our pumping-engine, dividing a piece of male rod and doing great damage to other parts of the machinery, but we hope to get it repaired and the lode set out again within a week.

EAST WHEAL GREENVILLE.—G. R. Odgers, W. Bennetts, July 14: There is no change in the 120 or 110 cross-cuts. In the 95 east the lode is fully 3 ft. wide, producing good ore and tin—a very promising lode. The lode in the 75 east is worth more than 50c. per fathom for tin and copper, with every appearance of further improving; this is really a splendid lode. In the 55 we find rich tin and copper coming in on the south side of the horse, which is a good indication. The stokes above this level will produce in the aggregate 8 tons of copper ore per fathom. The lode in the 45 east is worth from 1½ to 2 tons per fathom. We are making good progress with our copper ore sampling, which, as we said before, will considerably exceed the last, and we hope that our next sale of tin will be much larger than the preceding one.

EAST WHEAL LOVELL.—Richard Quenell, July 13: The mine is looking quite as we are reported at the meeting. In the bottom of the mine we have commenced to bring down the skip-road, which will take us about a fortnight. We have no in-pieces to-day, so I presume the public are satisfied.

EAST WHEAL SETON.—Joseph Vivian and Son, H. Arthur, July 14: Cartwright's Shaft: In the 24 west the lode is 4 ft. wide, and produces 2 tons of copper ore per fathom. The stope in the back of the 27 west yields 2½ tons of copper ore per fathom. We have set a tribute pitch in the bottom of the 20 west,

at 10s. in 12, where the lode has since improved, and now produces 4 tons of copper ore per fathom.—Basset's Engine-Shaft: We are putting in penthouse, preparatory to cutting plat, &c., and sinking this shaft below the 34; we calculate to be in course of sinking in about a fortnight.—Flat-Rod Shaft: There is no change in the character of the lode since the report to the meeting of shareholders. We expect within a fortnight to commence cutting plat, &c., preparatory to sinking below.

EXMOUTH (Silver-Lead).—John Cock, July 13: The lode in the deep adit end south is 15 in. wide, fair work for lead, and likely to continue. The stokes in the back of the same are producing good lead and jack. There is a good lode for jack in the shallow level end south. The tribute pitch is producing lead of fair quantity and quality, and the men getting wages. Up to this time I have been dressing coarse jack, but in a day or two shall be dressing much better work, when I hope to pack jack to pile fast. The water is rather short for dressing and crushing, consequently the work has increased on the crusher, yet I hope to sample on Aug. 11 all I have promised. We sampled 33 tons (computed) of lead ore on the 7th inst., which I think will be found of good quality. I have not yet shipped the last parcel of jack sold, as no vessel has yet arrived to take it in; I hope it will soon be shipped out of the way, as I am much in want of the room to put in another lot. The crusher is working well, and I consider the mine and things altogether are looking satisfactory, although nothing has yet been cut in the cross-cut west at the shallow level, but our expectations in that direction are great, as we are expecting to cut lodes not seen in the mine.

FLORENCE AND TONKIN UNITED.—W. Verran, July 14: The 55 fathom level has been driven east of Saw's shaft about 12 fms., where the lode is beginning to present a better appearance, and will soon be under the run of ore ground driven through in the upper levels, consequently we expect an early improvement here; in fact, some good ore has been broken to-day from the 45, a few fathoms further east than the present end in the 55, with every prospect of increasing quantities as we stop away the lode. As soon as plat is cut, &c., we shall drive the 55 west, to get under the productive ground driven over in the deep adit, and parallel to the Kelly Bray rich deposit of copper ore, as well as to intersect the lead lode, which near the surface is composed of gossan and quartz of the finest description. With the prospect of copper and lead in the western part of the sett, and copper and tin in the eastern ground, the new company may be gratified on having such a property, with so much of the heavy work done for them by the old company, who hitherto worked the mine as Wheat Mary Florence. A vigorous development will no doubt open up a

anes, that we shall soon have plenty. Nothing has been seen yet of the sides of the lode in the cross-cut, north and south, in the 12. At this level is now laid off of stuff, I am obliged to stop the cross-cuts for the present. The stops in No. 1 winze, in the bottom of the deep adit, east of shaft, are producing some good stones of lead, worth 10c. per fathom. The stop west of the deep cross-cut under the 6, is very kindly, worth 30 cwt. per fathom—the blue-looking lode, I hope we shall soon have water to commence dressing. There has been nothing done for some time towards getting under the shaft in the wood; this should be attended to when things get into proper working order again.

GREAT SOUTH CHIVERTON.—J. Nancarrow, July 11: The ground appears rather better in the engine-shaft to-day, and we are using every effort to get it down as fast as possible. The lodes have now so far separated in the 50 west that we can only drive on one of them; we are, therefore, driving on the north lode, which is 2½ ft. wide, composed chiefly of blonkan and prian, and looks very promising for lead. The lode in the 40 east has greatly improved in appearance, is softer, contains a great deal of carbonate of lime and munderie, and looks better than we have seen it for a considerable time.

GREAT SOUTH TOLGUS.—J. Rodda, July 14: The lode in the rise in the back of the 166 fm. level, west of Lyle's engine-shaft, is producing good stones for tin, and looking promising to improve. In the 154 west the lode is worth 8t. per fathom for tin, and the ground easy. One of the pitches in the bottom of the 20 fm. level, the north lode, which is 2½ ft. wide, composed of blonkan and prian, and looks very promising for lead. The lode in the 140, west of No. 2 cross-cut, is worth 11t. per fm. for tin. In the 125 cross-cut south we have intersected a branch consisting of munderie, copper, and tin, and the change in the ground indicates our being very near the tin lode, the underlie of which must be a little more between the 140 and 125 than between the 140 and 154, or we should have cut it by this time.

GREAT WESTERN.—Edw. Rogers, Edmund Rogers, July 13: Fisher's Lode: In the cross-cut driving north of Michell's engine-shaft, in the 30 fm. level, the ground is a little harder for exploring. The winze in the bottom of the 20 fm. level, west of this shaft, is suspended, owing to an increase of water, but will be drained when the lode is intersected in the level below. The winze in the bottom of the 10 is communicated to the 20 fm. level; we have, therefore, commenced to drive two levels on the junction of this Fisher's and the south lode, both of which are worth 5t. per fathom. The main flat-shaft is being case and divided with all possible speed, and will be completed in about a fortnight from this time.—Middle Lode: At the 25, driving east of Curtis's shaft, the lode is 2 ft. wide, worth 8t. per fathom. In the 20 fm. level, driving west on Curtis's shaft, the lode is 1 ft. wide, worth 4t. per fathom. At the 10, driving west on Curtis's shaft, the lode is 1 ft. wide, worth 4t. per fathom. The lode in the 20 fm. level, driving west on Curtis's shaft, we have cut the lode, and commenced to drive west on its course; it is 2 ft. wide, worth 4t. per fathom.

GOLD MINE.—OLD GOLD MINE.

The ground is a little harder for exploring. The winze in the bottom of the 20 fm. level, west of this shaft, is suspended, owing to an increase of water. The lode in the 20 fm. level, driving west on Curtis's shaft, we have cut the lode, and commenced to drive west on its course; it is 2 ft. wide, worth 4t. per fathom.

GWYDYE PARK.—W. Smyth, July 12: Gwyn Llifion: We are getting on pretty well with the driving here, although the ground is very hard. We have dug down the lode in the back of the 8, in Sutton's shaft; it is 6 ft. wide, composed of spar, gossan, blende, sulphur, and lead ore, worth for tin ½ ton per fathom; the water is very easy here, at present it can be kept down by working the engine one day in a fortnight.—Gwydyr: Johnny's shaft is squared down, and the staff cleared up as far as the water would permit. The men are engaged at present stopping a piece of ground from the rise to the bottom of the shaft to drain the water from old working. We have broken some good stones of lead ore from this stoppage, and the men are working on it until I have seen more of it.

HAREWOOD CONSOLS.—T. Neill, July 14: The new engine-shaft is sunk 18 fms. from surface; the lode at present is about 6 ft. wide, composed of capel, quartz, prian, munderie, and spots of copperore, and altogether it is the most promising lode for a good deposit of copper ore that ever I saw, and I believe a few good men will show it. The ground is favourable for progress, and we are making good ground.

HINGSTON DOWN CONSOLS.—James Richards, July 11: I have to-day inspected this mine, and now hand you my report thereon. In the 140, west of Balle's shaft, the leading part of the lode is 5 ft. wide, composed of peach, capel, munderie, quartz, and both tin and copper ores, and is kindly. This winze is suspended for the present, and the men are put to stop to the west thereof, for further proof of the lode before deeper sinking. Some 10 ft. west of this point a good-looking lode is gone down, and is worth for tin per fm. fully 20t. per fathom. In the 140 west the lode is 5 feet wide, composed of lead ore, and the men removed to sink below the 82 west, to come down upon the rise in the back of the 100 fms., which will improve the ventilation, and admit of our driving the 100 west, with six men instead of four, and also enable us to put up another in the orey ground passed through some months since, and where the lode is worth fully 10t. per fathom, and is otherwise very healthy. In the 140 east the lode is more promising, being composed of congenial capel, quartz, munderie, and copper ore, worth 3 tons, or 10t. per fathom, and good stones of tin ore.

HARWELL CONSOLS.—T. Neill, July 14: The new engine-shaft is sunk 18 fms. from surface; the lode at present is about 6 ft. wide, composed of capel, quartz, prian, munderie, and spots of copperore, and altogether it is the most promising lode for a good deposit of copper ore that ever I saw, and I believe a few good men will show it. The ground is favourable for progress, and we are making good ground.

HARWELL CONN.—H. Smith, July 12: Gwyn Llifion: We are getting on pretty well with the driving here, although the ground is very hard. We have dug down the lode in the back of the 8, in Sutton's shaft; it is 6 ft. wide, composed of spar, gossan, blende, sulphur, and lead ore, worth for tin ½ ton per fathom; the water is very easy here, at present it can be kept down by working the engine one day in a fortnight.—Gwydyr: Johnny's shaft is squared down, and the staff cleared up as far as the water would permit. The men are engaged at present stopping a piece of ground from the rise to the bottom of the shaft to drain the water from old working. We have broken some good stones of lead ore from this stoppage, and the men are working on it until I have seen more of it.

HARWELL CONN.—H. Smith, July 12: Gwyn Llifion: We are getting on pretty well with the driving here, although the ground is very hard. We have dug down the lode in the back of the 8, in Sutton's shaft; it is 6 ft. wide, composed of spar, gossan, blende, sulphur, and lead ore, worth for tin ½ ton per fathom; the water is very easy here, at present it can be kept down by working the engine one day in a fortnight.—Gwydyr: Johnny's shaft is squared down, and the staff cleared up as far as the water would permit

ground seen in the level above. We have also commenced to clear the 40 cross-cut south of said shaft, and hope to complete it by the end of next week, when we shall be in a good position to drive east and west on the Standard lode.

NORTH DOWNS.—James Williams, July 12: We are not satisfied that we are carrying all the lodes at the 70, and have put the men to cross-cut south; there is a large stream of water coming from the breast of the end, which indicates a lode near at hand. The 60 west is looking a shade better, producing good stones of ore. The winze in bottom of the 60, west of cross-cut, is worth 10*t*. per fathom. The stope in the back of the 70, west of western winze, has improved, now worth 10*t*. per fathom. All other places remain much the same as reported last week. A full report shall be sent you for the meeting, to be held on the 19th instant.

NORTH POOL.—July 12: Ballarat Shaft: The lode in the 40, driving east, is 2 ft. wide, worth for tin and copper 10*t*. In the 24 the lode is 2*1/2* ft. wide, worth 10*t*. per fathom. In the winze sinking under this level the lode is 2 feet wide, worth 10*t*. per fathom. The stope for tin and copper is worth 14*t*. per fathom.

NORTH ROSEKAR.—R. Goldsworthy, R. Angove, July 13: The lode in Doctor's engine-shaft continues just the same as when last reported on—still 5 feet wide, and a very promising-looking lode. In the 240, west of Doctor's shaft, the lode is disordered by a patch of killas, but this we think is only temporary. The lode in Bryan's winze, sinking in the bottom of the 240, west of Doctor's shaft, still maintains its former value—20*t*. per fathom for the length of the wings. The lode in the 230, west of Doctor's shaft, is about 6 ft. wide, producing stamping work of low quality for tin. In the winze sinking in bottom of the 230, west of Doctor's shaft, the lode is disordered by the elvan, but we look for an improvement here shortly. There is no alteration to notice in the 140 fm. level of cross-cut, south from Wheal Seton. The tin stops throughout the mine continue much the same as for some time past.

NORTH WHEAL CROFTY.—J. Vivian and Son, W. Thomas: The 208 fm. level, west of Petherick's shaft, continues to produce 5 tons of copper ore per fathom, worth (say) 40*t*. per fathom, with a tin part 4 ft. wide, corresponding to the north. The winze sinking under the 196 is becoming more productive for copper. The stope between the 196 and 208, west of Ball's winze, continues worth 50*t*. per fathom, principally copper. The other parts of the mine are much the same as when reported on at the recent general meeting of shareholders.

OLD GUNNISLAKE.—F. Phillips, July 13: Parker's shaft: We have completed successfully the getting up of the materials from below the deep adit level. In consequence of the men having been engaged as above stated—pulling up materials—no change to report in either the new shaft or cross-cut.

PEN-AN-DRE UNITED.—W. Tregay, J. Thomas, July 9: Sun Shaft:

The ground is favourable for sinking, and we are making fair progress. The lode in the 140 fm. level west end is worth 15*t*. per fathom. The stopes in the back of this level produce 10 cwt.s. of black tin per cubic fathom; lode 12 feet wide. The lode in the 130 fm. level east end is worth 6*t*. per fathom. The lode in the 120 fm. level east rise is worth 5*t*. per fathom. We have just cut into the lode in the 120 fm. level north cross-cut, which is letting out much water, and producing good stones of tin; there is but a small part of it yet seen, but we expect to see more of it next week. We are still cutting through the cross-course in the 100 east at the top of this rise.—Cobbler's Shaft: The lode in the 120 fm. level west end produces a little tin, but not enough to value.—North Shaft: The lode in the 90 fm. level west end produces stones of tin, and lets out much water. The lode in the 80 fm. level east end is worth 6*t*. per fathom. The lode in the 80 east end is worth 10*t*. per fathom. The lode in the 80 west end is worth 10*t*. per fathom. We have got through the lode in the 70 west, which is worth 15*t*. per fathom. The lode in the 60 east is worth 20*t*. per fathom. The lode in the 60 west is worth 20*t*. per fathom. The lode in the 55 east is worth 15*t*. per fathom. The lode in the 47 east is worth 15*t*. per fathom. The 47 west is worth 10*t*. per fathom. The pitchers throughout the mines are looking well, and are producing their usual quantities of tin. No other change to report.

PENHALLS.—S. Bennetts, W. Higgins, July 9: The lode in the winze below the 70 has just crossed another small gossan, and continues small, yet tinny. The 60 east is producing some tinstuff from the main lode, but the down-right is poor. The stopes in the back of the 70 is worth 12*t*. per fathom; that in the back of the 60, east of the engine-shaft, is worth 15*t*. per fathom; and those in the back of the same level west, on the north lode, 8*t*. per fathom. This lode has been slightly heaved by a gossan, or part of the Downright lode, and impoverishes it, but seems to be again improving above it. The western shaft is not yet holed to the 60. At the flat-rod shaft the stopes above the 10 is worth 12*t*. to 15*t*. per fathom. At Sarah's shaft the rise above the 17 is worth 10*t*. per fathom; and the 17, west end, 6*t*. per fathom. The other points of operation are without much change.

PENRHYN.—Mark Whitford, July 13: The 36-in. engine started to work on Saturday, the 9th inst. It was constructed by Mr. J. Hocking, one of the celebrated engineers of Cornwall. A great many spectators were present to witness the wonderful event in this part of the country, who gave vent to their very high congratulations by loudly cheering both to the worth of the company and engineer, since which time we have forked about 1*fms*. below the adit level. Everything is working harmoniously and satisfactorily. In the adit end on the north and south lode the ground is still hard, lode 1 ft. wide, producing good stones of silver-lead ore. In the winze sinking in the bottom of this level the lode is 1*1/2* ft. wide, spotted with lead; ground not so hard.

PERENN CONSOLS.—James Nance, July 13: Flat-rod Shaft: The ground at the shaft is fair for sinking, and the shaftmen are making good progress; it is now 8 fms. below the 20, carrying with it a much more kindly lode than we have had since we commenced this sink; the lode is 8 ft. wide, producing some very good stones of tin; judging from appearances, I think we shall soon meet with some good tin ground. In the 20 end, driving west of shaft, little has been done during the week, the men having been engaged in securing the level chiefly about the cross-course, which has unexpectedly come very heavy; the lode is 2 ft. wide, worth 3*t*. per fathom, and looking very promising. In No. 1 slope, in back of this level, the lode is 4 ft. wide, worth 10*t*. per fathom. In No. 2 slope the lode is 2 ft. wide, worth 5*t*. per fathom; in this level, east of shaft, the ground has a little improved for driving, and the lode more peachy, being a good indication for tin; it is 1*1/2* ft. wide, worth 2*t*. per fathom. In the 10, driving west of shaft, the lode is 2 ft. wide, producing a little tin.

PRINCE OF WALES.—J. Gifford, W. Gifford, July 12: Watson's shaft is now 6 ft. below the 77, and the ground is favourable for sinking. In the 77 fm. level cross-cut, we have met with a branch 6*t*. wide, producing some good stones of copper ore and tin, and letting out more water. The rise in the 77 fm. level east is being pushed on with all possible speed to communicate with the winze in the 65. In the 65 west there is no change. The No. 1 north lode, in the 55 west, is now 2*1/2* ft. wide, principally quartz, capel, and flookan. All slopes throughout the mine are the same nature as reported last week.

PRINCE ROYAL.—P. Floyd, July 13: We have set the new shaft to sink by four men, at 20*t*. per fathom, and expect to intersect the lode by the end of this month. The ground is congenial for tin, and expect we shall find a productive lode when cut into. We have broken some very good work for tin in the south lode, and intend to drive a cross-cut south, when the shaft is down to the 10 to intersect it. The clearing of the adit, and all other work, is going on in a very satisfactory manner.

PRINCESS OF WALES (Calstock).—T. Foote, G. Rickard, July 13: We have cut into the lode fully 4 ft. in the 50 cross-cut, north of Harris's engine-shaft, and find its composition to be of friable spar, peach, sulphuric mudi, with black, gray, and malleable copper—a very fine looking lode, and no signs as yet of reaching the north or footwall.

QUEEN (Silver and Copper).—Wm. Hancock, July 13: At your request, I have to-day inspected this mine, and beg to submit to you my report thereon:—Silver Department: Bennett's shaft is sunk 15 fms. below surface, and level driven west 14 fms., which has passed through occasional bunches of silver-work. A winze is in course of sinking below the 15, and 9 fathoms west of shaft, down 5 ft., producing good silver-work; this appears to be making in a flat floor on the south side, and dipping towards the south branch. Bennett's western shaft, which is 26 fms. west of the former, is down 16 fms. below surface; the last 2 ft. in sinking have been in a rich deposit of silver-ores, and looks to be inclining east, towards the eastern shaft, worth to-day, I should say, fully 600*t*. per fathom—that is keeping the safe side. This shaft is also sinking on the north part, and in about 9 fms. more sinking will form a junction with the south part. It is almost impossible for me, or anyone else, to say what depth or length this rich deposit of silver will last; but I find in the old adjoining mines—Wheat Brothers and Silver Valley—large quantities of silver-ores were returned from them.—Engine-shaft: They are now engaged drawing the water out below the adit with horse-whin and barrels, now down 17 fms.; as soon as they get the water out to the 20, below the adit, they intend crossing south, a distance of about 7 fms., to intersect No. 2 lode. About 55 fms. further east a shaft is in course of sinking below the adit, on No. 2 lode, down 12*t*. fms.; during the last few feet in sinking it has very much improved; the lode is now 2*1/2* ft. wide, worth for copper and mudi 20*t*. per fathom for length of shaft, 8*t*. per f. I may here remark that the engine-shaft is sunk 40 fms. below adit, and this lode (the No. 2) said not to be intersected below. I consider this to be a most promising lode. There are other lodes in your sett that deserve a spirited trial. Preparations are now being made to erect a 30-inch rotary engine at the engine-shaft.

W. Knott, July 14: Copper Department: The forking of the water at the engine-shaft is progressing favourably. I hope we shall fork and pit in solar in the 20, and be in course to cross-cut south towards the lode in the early part of the coming week. We have about 8 fms. to cross-cut to intersect the lode.—Cook's Shaft: This shaft is being sunk by six men on the course of the copper lode, at 6*t*. per fathom, stoned 5 fms., or the month. Since yesterday's report the lode has improved, and is now worth fully 20*t*. per fathom.—Silver Department: The winze west of Bennett's shaft, below the 15, is producing good saving work for silver. I estimate the value of the lode at this point at about 50*t*. per fathom. Bennett's western shaft, which is being sunk below the adit, or 10 fm. level, is now 6 fms. 4*t*. below the level; the lode in this shaft is—in my telegram of last Friday—now worth fully 700*t*. per fathom, and promising for improvement. It was down with the men yesterday, and took down about 100*t*. worth of rich silver ore, one stone of which weighed over 1*cwt*. worth 10*t*. per fathom, and was taken out.

WEST CWM ERFIN.—July 11: The lode in the adit level, east of engine-shaft, is bearing more towards the south, and looks exceedingly promising, containing nice spots of lead and copper ores. In the cross-cut north at the adit level the ground continues hard, and is letting out a great quantity of water; joints are frequently being met with which contain spots of ore, but as yet nothing of any moment has been intersected.

WEST DRAKE WALLS.—T. Gregory, July 14: We have cut through the north lode in the 54 fm. level, which is full 6 ft. wide. We are now driving east on the course of the same; the part being carried is from 2*1/2* to 3 ft. wide, composed of soft quartz, red oxide of copper, and black ore—good saving work; and from assays made we find the produce better than we expected. The north part of the lode, which is of a more solid character, is still standing, and will be taken down in the usual course of driving when necessary. I am pleased to say our prospects are very much improved, and there is every appearance that we shall open a good profitable mine here.

WEST GODOLPHIN.—John Pope, Jun., July 13: Caunt'r Lode: In the deep adit level driving south, east of Pressure shaft, the lode is 1 ft. wide, saving work for tin. In Vivian's shaft, sinking below the shallow adit level, the lode is 18 in. wide, worth 6*t*. per fathom; sinking at 5*t*. per fathom.—North Lode: In the deep adit level, driving east of the caunter, the lode is not so large as it has been—6 in. wide, saving work for tin. In driving south, east on the caunter, we have cut another part of this lode about 4 in. wide, and will, from present appearances, form a junction with the part we are driving on in 2 fms. or 3 fms. further driving. No lode taken down in the deep adit level, east of Salt's shaft, on Hope lode, for this month. We are pushing on the surface work and the engine-shaft as fast as possible, and shall be in readiness for the masons in the early part of next week.

WEST JEWELL.—John Mayne, July 14: At Greene's engine-shaft during the past week we have cut ground for cistern and fixed the bearers, and the men have resumed sinking. We are making good progress in sinking Sir Frederick's shaft and raising some good work for tin. Freeman's shaft, and the two ends, are looking much the same as when last reported on. In the tribute department there is no alteration of any importance. The masons are going on well with the building of the engine-house, and hope to have it up in about a fortnight's time.

stream of water coming from the south end of the shaft, which is no doubt from the south lode. All other things are being pushed on.

ROSEWALL HILL AND RANSOM UNITED.—J. Daniel S. Uren, July 13: The lode in the 110, driving east of Ransom shaft, is 1 ft. wide, saving work. No change in the 100 driving east, on the north part of the lode. This part of the lode in the 90, driving east, is 1 ft. wide, yielding a little tin. The lode in the stopes in bottom of this level is 2 ft. wide, worth 30*t*. per fathom. The lode in the 80, driving east, is 15 in. wide, worth 5*t*. per fathom. The lode in the 70, driving east, is 15 in. wide, worth 15*t*. per fathom. The lode in the 60, driving east, is 1 ft. wide, worth 8*t*. per fathom. The lode in the 50, driving east, is 15 in. wide, worth 15*t*. per fathom. The lode in the 30, driving east, is 1 ft. wide, worth 8*t*. per fathom. The lode in the 20, driving east, is 6 in. wide, saving work. No change in either of our cross-cuts driving north at the 160 and 90 fm. levels.—Eastern Carbone: The lode in this Carbone, stopping in the back of the 100 fm. level, is 5 feet wide, worth 20*t*. per fathom. There is no further change to report.

SOUTH CARDIGAN.—R. Williams, July 14: The prospects here are still cheering. The lode in the shaft produces good ore in paying quantities, and increases in size as we proceed; it has so far increased from 2 ft. to 4 ft. wide. During the last few days we have had much rain, and the water in the shaft has consequently increased, and I have made provision for pumping instead of drawing it, otherwise these arrangements will be completed in a day or two. The adit advances towards the shaft satisfactorily, and as soon as this communication is made, all water from the shaft to adit will flow out at that level.

SOUTH CONDURROW.—J. Vivian and Son, H. Abraham, July 14: In the 82 fm. level cross-cut south, west of King's shaft, there is no alteration to notice since the last report. In the 71 fm. level, west of King's shaft, the part of the lode through which we are driving has, for a width of 6 ft., a value of about 15*t*. per fathom. In extending this level further south we have met with granite, after having passed through a part of the lode about 3 ft. wide, worth about 12*t*. per fathom. In the winze sinking under this level the part of the lode being sunk through has for a width of 6 ft. a value of about 25*t*. per fathom. In the 61 fm. level, west of King's shaft, the lode is 3 ft. wide, and worth about 20*t*. per fathom. In the winze sinking under this level the lode is about 4 feet wide, and worth about 15*t*. per fathom. In the 61 fathom level, on the north branches of the lode, we are carrying a width of 10 ft., which is worth about 25*t*. per fathom. In the 51 fm. level, east of Vivian's shaft, the lode is 6 ft. wide, worth about 15*t*. per fathom. In the winze sinking under the 51 fm. level, west of King's shaft, on No. 1 north branch, the lode is 1 ft. wide, and worth about 6*t*. per fathom. In the 51 fm. level cross-cut north, on the cross-course, east of King's shaft, we have intersected a lode 1*1/2* ft. wide, composed principally of gossan, impregnated with tin. The new shaft, east of Ty shaft, has been communicated with the deep adit level. The stopes, on the whole, are producing better quality tinstone than they have recently done.

SOUTH DUNREN.—J. Boundy, Wm. H. Boundy, July 11: The lode in the 80 fm. level, west of King's shaft, is rather hard for exploring. The lode in the 70 west is 2 ft. wide, with indications of improvement. No lode has been taken down in the 60 west since last report, and therefore we have no change to report. The stopes throughout the mine are looking just the same as for some time past.

SOUTH MERLILYNN.—July 14: Vickers' Shaft: During the past month the 80 yard level, driving south from this shaft, has been extended 6 yards; re-set to-day to four men, at 6*t*. per yard; the lode is 18 in. wide, composed of spar, limestone, and lead ore, yielding of the latter 6 cwt.s. to the fathom. The sumpt sinking below the 80 yard level, north from sparseshift; it is now down 10 yards; the men sunk last month 6 yards. I have now set them to drive south from the bottom at 5*t*. per yard; the lode at this point is fully 3 ft. wide, and producing 6 cwt.s. of lead ore to the fathom. The air at this point has been indifferent, but this has been remedied by having had a communication made from the 80 to the 60 yard level. The cross-cut west to the western lode has been extended 3 yards during the past month; re-set at 5*t*. per yard. I cannot say much concerning this point, but there are strong symptoms of a joint or lode at hand.

SOUTH PLYNLIMMON.—John Walters, July 13: The engine-shaft is sinking below the adit level; the ground here is rather hard for exploring.

SOUTH MERLILYNN.—July 14: Vickers' Shaft: During the past month the 80 yard level, driving south from this shaft, has been extended 6 yards; re-set to-day to four men, at 6*t*. per yard; the lode is 18 in. wide, composed of spar, limestone, and lead ore, yielding of the latter 6 cwt.s. to the fathom. The sumpt sinking below the 80 yard level, north from sparseshift; it is now down 10 yards; the men sunk last month 6 yards. I have now set them to drive south from the bottom at 5*t*. per yard; the lode at this point is fully 3 ft. wide, and producing 6 cwt.s. of lead ore to the fathom. The air at this point has been indifferent, but this has been remedied by having had a communication made from the 80 to the 60 yard level. The cross-cut west to the western lode has been extended 3 yards during the past month; re-set at 5*t*. per yard. I cannot say much concerning this point, but there are strong symptoms of a joint or lode at hand.

SOUTH PLYNLIMMON.—John Walters, July 13: The engine-shaft is sinking below the adit level; the ground here is rather hard for exploring.

WHEAL AGAR.—E. Rogers, July 13: The different places of operation throughout the mine are about the same as reported last week. We are making fair progress in forking the water in the Windstow part of the mine, the benefit of which will soon be felt in the flat-rod shaft.

WHEAL BASSET AND GRYLLES.—W. Oats, jun., P. Prisk, July 13: Setting Report: At our setting on Friday last we set the following bargains:—Wheal Fat shaft to sink below the 30 by nine men, the month, at 40*t*. per fathom; the lode is 6 ft. wide, worth 3*t*. per fathom. Middlework shaft to sink below the 42 by six men, 3 ft. at 40*t*. per fathom; when this is completed we shall cut ground for bearers and cistern, and fix a lift preparatory to sinking below; the lode is 6 ft. wide, producing good stamping work. The 42, east of said shaft, to drive south by two men, at 14*t*. per fathom, for 3 ft. or cut through the lode, which is large, and producing good tinstuff, but we cannot give its value until it is cut through. The 42 to drive west of said shaft by four men, for the month, at 10*t*. per fathom; lode 5 ft. wide, worth 2*t*. per fathom. The 30 to drive east of Wheal Fat shaft, on Ferguson's lode, by two men, the month, at 6*t*. per fathom; lode 3 ft. wide, producing saving work for tin, and laying open tribute ground. The 30 to drive east on a branch north of Ferguson's lode by two men, 3 fms. or the month, at 2*t*. per fathom; branch 1 ft. wide, of a kindly appearance, and producing tin. The 22 to drive east of Wheal Fat shaft, on the north branch, by two men, at 11*t*. per fathom, for 1 ft. wide, of a kind appearance, and producing tin; the driving here has been suspended for some time, and it is now resumed, with a view to get further east, over where we have in the 30. The 34 to drive east, on Tyacke's lode, by two men, at 3*t*. per fathom, and 5*t*. tribute; lode 2 ft. wide, producing tin enough to pay for driving, and is laying open good tribute ground. And 26 pitches to 54 men and 5 boys, at tributes varying from 8*t*. to 16*t*. in 17. At Wheal Cock we have set the engine to work, fixed a 6-in. plunger-lift at the adit level, and dropped a way another below, and have now cleared up, cut down, and secured the engine-shaft 20 fms. below the surface, but as yet have not reached the bottom of the old workings, being pushed on with all possible speed by a full pare of men. The appearances here are very encouraging, easy, and the engine and pitwork works well.

WHEAL BULLER.—Jas. Inch, July 13: Hocking

Journal. They are fully paid, and there is ample capital in hand to erect all the machinery, and to properly develop the various valuable lodes contained in the scott.

TANKERVILLE.—The details of the first general meeting are reported in another column. It will be seen that the mine continues to progress in a most satisfactory manner, that the reserves are rapidly increasing, and that the monthly returns of ore will henceforth be gradually increased. The permanent character of the mine may be judged by the evidence brought forward at the meeting, the manager stating that from the one lode now being opened out the returns can be quadrupled. There are several other productive lodes, which will be developed by the new shaft that is being rapidly sunk.

PACIFIC.—These shares have been more adversely affected by the panic than those of any foreign mine, from the fact that in the first instance, the shares were largely held by members of the Stock Exchange. It should be remembered that the 3*l.* per share will be returned in a few days, and that there will then remain in hand a working capital of nearly 2*l.* per share, the total number of shares being 15,000. This leaves an aggregate of 30,000*l.*, as the present market value of the silver mine at Lander Hill and the gold quartz mine in Grass Valley. Most satisfactory advices have been received during the week from Lander Hill, and the indications are most encouraging for cutting other lodes from the cross-cut at the 515 ft. level—lodes which both east and west have been and still are highly productive. The driving at the 400 ft. level end west is laying open a good mine. At Union Hill Mine crushing operations have been suspended until the necessary repairs to the machinery are completed. This mine is stated to be of equal promise to the Eureka Mine, which is in the immediate vicinity. The lode is of the same size, and presents every indication of proving equally productive in depth. The change in the management effected by one of the directors, who is now at the mine, is likely to bring about most satisfactory results.

THE MORRIS TESTIMONIAL.—In accordance with the notice in last week's *Mining Journal* the Testimonial to Professor John Morris, of University College, London, was presented by Sir Roderick Murchison, K.C.B., at the Geological Society's Rooms, on Thursday, and consisted of a mounted vellum, a certificate for 50*l.*, Great Indian Peninsula Guaranteed Stock, and cash, the total amount subscribed being about 620*l.*, from which the cost of the vellum (less than 5*l.*) was the sole deduction. Of the cash balance, 30*l.* was presented on Thursday, the remainder being left with the treasurer, Mr. Milnes, at the disposal of Prof. Morris. Details will be given next week.

INJURIOUS ACTION OF LEAD PIPES ON WATER.—The importance of discovering a really efficient means of preventing the injurious action of lead pipes on water is universally acknowledged, and the experiments of Dr. Crace-Calvert have proved beyond question that no proposition hitherto brought forward has been calculated to remedy the evil complained of. A discovery, however, has now been made through which the water supplied by leaden pipes may be obtained by the consumer as pure as from the original source. Dr. H. SCHWARZ, of Breslau, has discovered a means by which the portion of the lead forming the interior surface of the pipe may be converted into an insoluble sulphide, the natural consequence being that the water passing through will be as free from contamination as if glass were used. The means by which Dr. Schwarz effects this conversion are extremely simple. He merely passes a strong solution of the sulphide of an alkali through the pipe to be acted upon, and the process is completed. This solution, which is either a sulphide of potassium or of sodium, is used at a temperature of about 212° Fahr., and is allowed to act upon the metal for from 10 to 15 minutes. It is stated that in practice a boiling solution of caustic soda and sulphur is found to answer every purpose (*Mining Journal*, Sept. 19, 1863). This says the Boston (U.S.) *Journal of Chemistry*, writing in 1870, "may be a new thing in Breslau, but more than two years ago we suggested a similar process as, on the whole, the best that we knew for the purpose. The directions we gave were as follows:—Dissolve one pound of sulphide of potassium in two gallons of water, and let it remain in the pipe twelve hours, or until the inside is thoroughly blackened. The same recipe was given in Rolfe and Gillett's *Hand-book of Chemistry*, published in 1868. The use of a warm saturated solution, as Dr. Schwarz directs, would do the work in shorter time, which might be more convenient in some cases."

PoISONING BY BLAST-FURNACE GASES.—Dr. PERCY, of the Royal School of Mines, Jermyn-street, writing to the *Times*, says—"It is reported that four men have been killed at iron works in North Staffordshire by what is termed 'waste gas from the blast-furnaces.' The poisonous ingredient of that gas is carbonic oxide, and the inhalation of it in very small quantity, whether pure or mixed with common air, rapidly destroys life. I have collected and published several cases of fatal poisoning from that cause at iron works, foreign as well as British. A few years ago the engineer of the Dowlais Iron Works was suffocated in his office by the escape of this gas from an adjoining culvert. It is important that the managers of such works should be acquainted with its highly poisonous nature, and take every precaution to prevent their workmen from being exposed to its influence. As the use of the waste gas from our blast-furnaces for heating steam-boilers, mine kilns, &c., is extending daily, it is to be feared that deaths from its inhalation may become more frequent than hitherto, unless those who deal with it are fully instructed concerning its action on man. With the hope of communicating such instruction as widely and as quickly as possible, I beg to submit this letter for your consideration."

RUSTING OF IRON.—Dr. CALVERT communicated to the Chemical Society some very useful information on the rusting of iron. Rust is mainly sesquioxide of iron, and it has always been supposed that the active agents in producing it are moisture and oxygen. It seems, however, from Dr. Calvert's experiments, that carbonic acid must be associated with these to produce any considerable amount of oxidation. In dry oxygen iron does not rust at all, in moist oxygen but little and seldom, but in a mixture of moist carbonic acid and oxygen iron and steel rust very rapidly. In like manner a piece of bright iron placed in water saturated with oxygen rusts very little, but if carbonic acid is present as well oxidation goes on so fast that a dark precipitate is produced in a very short time. Curiously enough, bright iron placed in a solution of caustic or carbonated alkali does not rust at all. These facts show that the points to be attended to in the preservation of iron from rust are the exclusion of carbonic acid and moisture, two indications which may be very easily fulfilled.

EXPORTS OF RAILWAY IRON.—The exports of railway iron from the United Kingdom attained in May the imposing total of 131,208 tons, as compared with 87,392 tons in May, 1869, and 54,838 tons in May, 1868. Russia took no less than 52,741 tons of our railway iron in May, against 23,120 tons in May, 1869, and 10,011 tons in May, 1868. To the United States we sent in May 33,175 tons of railway iron, against 25,557 tons in May, 1869, and 24,221 tons in May, 1868. In the five months ending May 31 this year the exports attained an aggregate of 437,235 tons, against 320,745 tons in the corresponding period of 1869, and 233,769 tons in the corresponding period of 1868. The exports have increased this year largely to Russia, and slightly to the United States. They have also increased this year to Prussia, Holland, Spain, the Danubian Principalities, Cuba, Brazil, Chili, British India, &c.; but they have decreased to Sweden, France, Egypt, Peru, British America, and Australia. The value of the railway iron exported in May was 1,050,154*l.*, against 697,022*l.* in May, 1869, and 433,246*l.* in May, 1868; and for the five months ending May 31 this year 3,521,561*l.*, against 2,480,594*l.* in the corresponding period of 1869, and 1,809,030*l.* in the corresponding period of 1868.

INVESTMENTS IN LEAD MINES.—The DIVIDENDS paid by LEAD MINES for the year have DOUBLED in AMOUNT in the last ten years, and are likely to continue to increase. Some of the young lead mines will probably become profitable, and rise greatly in value in a short time. Full particulars, with a MAP of the Cardiganshire and Montgomeryshire districts (including Van, Blynny, Plynlimon, East Darren, South Darren, Llanbur, Cwmystwyth, Cefn Brynwy, and other mines), can be obtained price 1*l.* on application to J. H. MURCHISON, Esq., No. 8, Austin Friars, London, E.C.

* * * With this week's *Journal* a SUPPLEMENTAL SHEET is given, which contains—Original Correspondence: Ferry Hill Iron Works; Government Inspectors' Reports; Lead Mining in Devonshire; New Mines in Old Districts, in Derbyshire and North Wales; Variation of the Magnetic Meridian (W. Lintern); Charcoal Pig-Iron Railway Axles; Sir J. Whitworth on Railway Axles; Steam-Boiler Inspection Committee (J. Swift); Mining, Legitimate and Speculative (A. Bennett); Van Mine, and its Prospects (J. Roberts); Agents' Salaries (J. Roberts); Virtuous Lady and Queen Mines (T. J. Barnard); Terras Tin Mine, and its Management—Foreign Mining and Metallurgy—Australian Mine Reports—Foreign Mines Reports—Grylls's Annual Mining Sheet—Patent Matters (Michael Henry), &c.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, JULY 15, 1870.

COPPER.	£ s. d.	£ s. d.	IRON.	Per ton.
Best selected, p. ton	75 0 0	—	Bars Welsh, in London	7 6 7 10 0
Tough cake and tile	73 0 0	—	Ditto, to arrive	7 5 0 7 10 0
Sheathing & sheets	76 0 0	78 0 0	Nail rods	7 10 0
Boats	77 0 0	—	Staffd. in London	8 5 0 9 0 0
Bottoms	78 0 0	—	Bars	8 0 0 9 0 0
Old...	69 0 0	70 0 0	Hoops	8 18 0 9 0 0
Burra Burra	74 0 0	—	Bars	8 15 0 8 0 0
Wire...per lb.	0 0 10	—	Hoops	8 2 0 8 5 0
Tubes	0 0 11	—	Sheets, single	9 10 0 11 0 0

BRASS.	Per lb.
Sheets	per lb. 8 <i>1</i> / _{2d.}
Wire	7 <i>1</i> / _{2d.}
Tubes	10 <i>1</i> / _{2-11<i>1</i>/_{2d.}}
Yellow Metal Sheath, p. lb.	6 <i>1</i> / _{2d.-7<i>1</i>/₂d.}
Sheets	" 6 <i>1</i> / _{2d.}

SPELTER.	Per ton.
Foreign on the spot £19 0 0-19 10 0	to arrive .. Nominal.
In sheets	£23 10 0 -

ZINC.	Per ton.
Quicksilver (p. bottle)	7 17 0

TIN.	Per ton.
English blocks	Nom. 134 0 0
Do., bars (in brls.)	135 0 0
Do., reduced	137 0 0
Banca	130 0 0
Strait	128 0 0-130 0 0

tin-PLATES.	Per box.
I.C. Charcoal, 1st qua	1 6 1 8 0
I.C. Ditto, 1st qua	1 12 6 1 13 0
I.C. Ditto, 2d quality	1 6 0 1 6 0
I.C. Coke	1 3 0 1 3 6
I.C. Ditto	1 9 0 1 9 6
Canadaplates, p. ton.	13 10 0 14 10 0
Ditto, at works	13 0 0 14 0 0

LEAD.	Per ton.
English Pig, com...	18 5 0 18 10 0
Ditto, LB.....	19 10 0 19 0 0
Ditto, WB.....	19 5 0 —
Ditto, sheet.....	19 0 0 —
Ditto, red lead	20 0 0 20 10 0
Ditto, white	27 0 0 30 0 0
Ditto, patent shot	21 0 0 —
Spanish.....	18 0 0 —

* At the works, 1*l.* to 1*s.* 6*d.* per box less.

REMARKS.—The question of peace or war has engaged the attention of the commercial community this week more than any other subject, and renewed fears from day to day have been excited lest negotiations should terminate in actual hostilities. The announcement of the withdrawal of Prince Leopold afforded great relief, and instantly strengthened the prospects of peace. It released Spain from any further participation in the affair, and was the only avowed object France had in view in addressing Prussia. All pretext for war was, therefore, apparently removed, and it seemed a pity France had not made her request in more courteous terms, and in a manner calculated to establish a good understanding. Prussia, however, knew very well that any secret correspondence upon such an important matter would excite the jealousy of France, and ought to have been more than ordinarily careful in providing against such a possibility; but she may have calculated the cost, and prepared to meet the consequences, if so, she is very much to blame, and France may be perfectly justified in still demanding guarantees for the future. Whatever the result may be, one thing is now clear, that a very bad feeling exists between two powerful continental nations, and this is a most unsatisfactory state of things for trade, as it must necessarily cause uneasiness and distrust. Our markets are being kept in a state of suspense, and very little business transacted. Prices are all nominal.

COPPER.—3600 tons charters for the fortnight were reported on Monday from Valparaiso, June 3, per Reuter, and created such a consternation amongst the holders of Chili bars, that they were loud in their expressions of disbelief, and said it must be a mistake in the figures, or must mean charters for a month; but the private advices, received the following morning, caused great vexation, and confirmed the fact that it was quite true the large quantity were charters for the fortnight only, and out of it about 2000 tons of regulus. The immediate effect which this announcement produced was a decline of 3*d.* per unit on regulus, and also a reduction in bars, business being reported at 677.10*s.* Our repeated warnings not to place too much reliance on the recent rise in prices must be so fresh in the minds of our readers that no further allusion need be made than to point to the present charters as confirmation, in great part, of our previously-expressed views. It is seldom that errors in judgment are made when founded upon impartial and truthful statements; and although prices may be forced up for a time by speculation, combination, or otherwise, yet the market will sooner or later find its level. Much stress has been laid upon the falling off of charters, compared with last year, but very little mention is made of the comparative stocks which, taken into account, pretty well balance the one against the other, so that as regards supplies there is no perceptible relief. Now, a word with regard to the influence that war is likely to have upon prices. France is one of the largest consumers in the world of Chili bars, and the question is, whether she would take as much as usual; and, again, will sellers have sufficient confidence to take French drafts in payment? The risk for so small a commission as $\frac{1}{4}$ or $\frac{1}{2}$ per cent. is a great one at the best of times, but in time of war terms would, no doubt, be insisted upon, and this in itself would limit the demand, and it might be so greatly diminished as to throw large quantities of Chili bars on to our market. The same will apply to Germany as regards Australian descriptions.

IRON.—The only variations that have occurred in our market are in Scotch pigs, which have fluctuated according to the nature of the intelligence from the Continent, but assume a declining tendency in the face of the latest telegrams from France. There is a decrease in the shipments this week of about 3000 tons.

LEAD.—In last week's *Journal* particular attention was directed to the fact that in the event of war the price of this metal would be greatly enhanced, and sellers should act cautiously in making forward engagements. Sellers have day by day been gradually advancing their prices, and would only sell in moderate quantities: some sellers have for the time being entirely withdrawn. Spanish iron is also very difficult to buy. Prices are nominal.

SPELTER.—This metal is held firmly in anticipation of realising higher rates, and it would be perfectly useless to attempt to treat for anything beyond the most trifling quantities. Prices cannot be relied on from one hour to another.

STEEL.—If the German manufacturers are prevented sending forward supplies there may be some hope for Swedes keg coming again into request, and realising higher prices.

TIN.—Quotations are very wide, and a considerable reduction would be made to effect sales of either English or foreign. We should not be surprised to see the market utterly collapse upon the breaking out of war on the Continent, but which horrible calamity we sincerely trust, for the sake of the lives and welfare of our neighbours, may yet be averted.

THE COPPER TRADE.—Messrs. James and Shakespeare—The rumours of war, coupled with heavy charges from Chili, enabled the smelters to secure a large supply of furnace material on terms which leave a small margin on their official quotations for metal, and during the present week they have taken about 500 tons of regulus, lying in Liverpool and Swansea, at 1*s.* ad. per unit, and would have made further purchases had importers been willing to continue sales at the same figure. Those transactions have given a firmer tone to the market, and prevented any important alteration in other sorts. Chili slab is quoted at a decline of 5*s.* to 10*s.* per ton on the rates current Friday last, and sales of about 400 tons, principally Lota and Urmenatea, reported within the last day or two at 671.10*s.* cash terms, but 5*s.* more has since been offered and refused for other good ordinary brands, of which 6*s.* is the asking price, and at that figure about 100 tons were sold during the course of present week. On

Tuesday the Chili mail was delivered, and advised charters between May 16 and June 2 for 3600 tons pure, of which 1865 tons in bars and ingots, 1679 tons in regulus for England, and 116 tons in bars for France; the total charters for the corresponding period 1869, were equal to 1412 tons pure. News have since been received giving the charters for eight days subsequent to the departure of the mail as only 290 tons pure, and it is, therefore, thought that the next advices will be moderate. Australian continues to be neglected, and only a few small sales reported in Wallaroo at 73*s.* 10*s.* per ton. Smelters are asking full prices for tough and selected, bat will concede a trifle on bracers' sheets and sheathing for India.

Messrs. Vivian, Younger, and Bond—The partial firmness noticed in our last report has this week disappeared. A few transactions have taken place in Chili bars at from 68*s.* down to 67*s.* 10*s.* for good brands, and at the close there are no buyers at the latter rate. On Tuesday the Valparaiso letters of June 2 came to hand, advising that the charters for the fortnight were about 3650 tons fine copper—2000 tons in bars and ingots, and 1650 tons fine copper in regulus. The

asmuch as it shuts out of competition with us Prussia and France, while Spain is a large producer of lead and other metals. Van shares have maintained their price, and an advance may confidently be looked for. The lode in the cross-cut in the 45 is worth over 15 tons per fm., and throughout the mine never looked better; price, 75 to 78. Pacific, 7 to 7½; the return of 3d. per share will be made in a few days, and the prospects of the company's mines are good. Sweetland Creek, ½ d.; to ½ prem., ex div.; the advices from the mines are good, and the profit being made of a satisfactory character. East Lovells have had a heavy fall—say, from 32 to 32. Tankerville, 15½ to 16½; the details of the meeting are reported in another column; the mine is very favourably reported on. Laxeyes are rather less firm. Taquaril and General Brazilian Companies anticipate favourable advices by the next mail, and shares are enquired for. Subjoined are closing prices:—Asheton, 4½ to 5½; Cae Gynon, 1½ to 2; East Lovell, 31½ to 32½; Laxey, 17½ to 18½; Great Wheal Vor, 10½ to 11; Prince of Wales, 14s. to 15s.; Tan-yr-Alt, 2½ to 3; Van Consols, 3½ to 3½; Tankerville, 15½ to 16; West Tankerville, 2½ to 3; West Chiverton, 53 to 54; Almada, part to 4 prem.; Anglo-Argentine, ½ d. to ½ prem.; Anglo-Brazilian, ½ to ½ d.; General Brazilian, part to ½ prem.; Don Pedro, 2½ to 2½ prem.; Chontales, 1 to 1; Capula, 1½ to 1½; Cape Copper, 10½ to 11; Frontino, 1 to 1; Pacific, 7 to 7½; St. John del Rey, 21 to 23; Taquaril, 4 to 4½ prem.; Yudanamutana, ½ to 1.

IRISH MINE SHARE MARKET.—The most noticeable feature in our Mining Share Market has been the fluctuation in the shares of the Mining Company of Ireland, since the general meeting of the company (as noticed in last week's Journal), when one of the smallest dividends ever declared by this company was resolved upon by a small majority over those proprietors who advised the prudent course of putting the trifling credit balance to next half-year's account. The shares of the Beerhaven Mine are not yet on the market, but those of the Mining Company of Ireland advanced fully 12. 2s. 6d. each, which was, however, not maintained, and has since been lost, the present price being 8s. 6d. ex div. (7d. paid). Wicklow Copper (2½ d. paid) shares were much steadier, although they have gone back during the last few days about 5s. per share, 9½ being the best offer obtainable at present. The shares of the General Mining Company for Ireland keep firm at their recent improvement of 3s., and are freely taken at 22s. 6d. to 23s. Connoree shares are enquired for at 2s. Cape Copper shares stood for some time at 17s. 17s. 6d., and have just advanced to 18s. All other stocks and shares on our market have been seriously affected during the last few hours by the telegraphic news respecting the continental war crisis.

The FLORENCE AND TONKIN UNITED MINING COMPANY is to be carried on under the Cost-book System with 12,500 shares. The object of the enterprise is to develop a valuable mineral seat, bounded on the east by the Prince and Princess of Wales, and on the west by Redmoor Mine. The mine was purchased under the liquidation of the old company, and is offered to the present at about the purchase price. The shares are to be issued at 2s. 6d. each, and a call of 1s. per share will be made in August. There is an excellent 25-in. cylinder engine now at work, and other necessary machinery and buildings, with tools, &c., are on the mine, and now become the property of the new company, who possess it at less than half its original cost. Four very promising tin and copper lodes traverse the seat from east to west for a distance of about 600 fathoms, while near its western boundary a lead lode of great promise crosses the seat from north to south, in a channel of ground which for the production of lead cannot be surpassed. The property has been inspected, and favourably reported upon, by Capts. Gilbert and Rickard. The machinery on the mine is in good condition, and of sufficient power for putting the mine down to a good depth and proving the side lodes, which are known to exist, and from which in all probability tin was returned by the ancients, as the workings are extensive on the backs. The prospectus will be found in another column.

The STAFFORDSHIRE BRICK AND TILE COMPANY, with a capital of 12,000*l.*, in shares of 2*s.* each, has been formed to purchase and extend the iron-clay works of Messrs. Arnott and Co., at Wilnecote, Tamworth, also the London dépôt. The clay land extends over about 15 acres, the deposit is 60 yards in depth, and the lease is for 27 years. The Staffordshire bricks enjoy a high reputation in the market, and their capability to bear a pressure of from 90 lbs. to 100 lbs. per square inch renders them applicable where other bricks would be useless. The quality of the company's clay, combined with the capabilities of the machinery and plant, guarantees the supply of large quantities of plain and channelled bricks, plain and fancy tiles, drain pipes, &c., for which there is a ready market. With regard to profits, it is estimated that, taking prices at 10 per cent. lower than at present, a dividend of 15 per cent. upon the capital can be paid, and that by an extension of the works, which can be done at a small outlay, 20 per cent. per annum may be relied upon. It is mentioned that an advantageous contract has been entered into for the acquisition of the property, a great part of the shares have already been taken, and as the payments are to be made 1*l.* upon application, and 1*l.* upon allotment, there will be no further liability upon them. The share list will positively close on Wednesday, July 20.

The GREAT WEST CHIVERTON SILVER-LEAD MINE, Cornwall, was visited last week by a member of the board of directors, who is well acquainted with mining. He has returned thoroughly satisfied with the appearance of the mine, particularly at the deepest level, about 42 fms. from surface, and has brought some very fine specimens of lead ore, broken by himself, unassisted by interested advice. The specimens are at the company's office, 9, Dowgate-hill, Cannon-street.

At East Pool Mine meeting, on Monday, the accounts for April and May showed a profit of 16,082*l.* 6s. 3d. A dividend of 160*s.* (5s. per share) was declared, and 27*s.* 19*d.* carried to the credit of next account. [The agents' report is among our Mining Correspondence.]

At Marke Valley Mine meeting, on Wednesday, the accounts from April 13 to July 13 showed a profit of 22,707*l.* 6s. 5d. A dividend of 160*s.* (5s. per share) was declared. [The agent's report is among the Mining Correspondence.]

At Pendarvan United Mines meeting, on July 7, a profit was shown on the four months' working of 29,177*l.*, the total credit being 83,781*l.*, but from this must be deducted the balance against the adventurers at the last account, 70,451*l.*, and also February merchants' bills, as resolved upon, and the real credit balance is but 6,330*l.*, even whilst charging the labour and bills up to February only, whilst all the bills are credited up to the day of the meeting. A dividend was declared of 250*s.*, when at the same time the mine was, if the liabilities and assets were taken at the same date, over 10,000*l.* in debt! Protests against the accounts and against the payment of the dividend were entered, in conformity with the 9th clause of the Statmarines Act, 1869. A very great improvement has, no doubt, been at last effected over the, until recently, ruinous mode of working this mine.

At Cargoll Mine meeting, on July 8, the accounts for January, February, and March showed a debit balance of 259*l.* 14s. 3d. Capts. John Grose and Robert Tyzzer say:—"During the quarter for which the accounts are now about to be audited we have had several serious breakages to our machinery, which have much increased the cost and impeded our progress generally. We have prepared about 30 tons of lead ore towards our next sampling, and also about 12 tons of good copper ore and about 50 tons of muriatic." Capt. F. Puckey says:—"I cannot too strongly recommend that Michell's engine-shaft should be continued sinking so fast as possible, to open out deeper levels, as I consider you are now full 12 months behind with the sinking of the shaft, for had the shaft been down to force on a 170 fathom level you would then be in a very good position, and I am confident you would then have a profitable mine."

COAL MARKET.—The supply this week has been extremely moderate, only 57 fresh ships having come forward. House and steam coals have been in increased demand, and prices of both quote 6d. per ton higher than this day week. Haswell Wallsend, 17s. 6d.; Eden Main, 15s. 6d.; Tunstall Wallsend, 14s. 9d. Unsold, 2 cargoes; 40 ships at sea.

The Bank of England returns for the week ending on Wednesday evening show'd in the ISSUE DEPARTMENT a decrease in the "notes issued" of 38,795*l.*, which is represented by corresponding decrease in the "coin and bullion," on the other side of the account. In the BANKING DEPARTMENT there was a decrease in the "public deposits" of 1,149,237*l.*, and in the "other deposits" of 2,243,159*l.*, together £3,391,396*l.*; an increase in the "seven day and other bills" of 22,662*l.*, and in the "rest" of 39,830*l.*; together, 73,501*l.*—2,881,553*l.* = 2,876,553*l.*: leaving a decrease in the "other securities" of 443,360*l.*

KING ARTHUR (Silver-Lead).—The shares have been allotted during the past week. The workings on the north lode continue to look very well, producing about 1 ton of good ore per fathom, with every indication of a further increase. In the stopes the men are taking down some fine solid silver-lead, yielding about 20 cwt., to the

fathom, which will considerably increase the return of ore for the coming month; a parcel will then be ready for sampling, which it is expected will realise a high price per ton.

MESSRS. JOHN KNIGHT AND CO., COOKLEY IRON WORKS, near KIDDERMINSTER, beg to inform their numerous friends that all departments of their TIN-PLATE WORKS ARE IN FULL OPERATION AGAIN, and that they are thereby enabled to give prompt dispatch to ORDERS for TIN and TERNE PLATES and TINNED and TERNE SHEET IRON.

PARTNERSHIP—COAL TRADE.

A COLLIER OWNER, extending his operations, DESIRES a PARTNER TO CO-OPERATE WITH HIM. Twenty Per Cent. profits, and Five Per Cent. guaranteed during development.

Apply to JOSEPH SIMPSON and Co., Public Accountants, 2, Cowper's-court, Cornhill, E.C.

TO CAPITALISTS.

THE OWNER OF A LARGE AND PRODUCTIVE COLLERY, in the neighbourhood of Cardiff, is WILLING TO DISPOSE OF ONE-HALF SHARE on terms exceptionally advantageous.

For particulars, apply, with references, to Mr. J. G. T. CHILD, Manchester or to CHILD, HORNEY, and Co., 27, Lombard-street, London.

METAL TRADE.

WANTED, A RESPECTABLE PERSON who UNDERSTANDS the TRADE, and who has been accustomed to an office in the City. Address, by letter only, salary required, and other particulars, to "A. B.", MINING JOURNAL Office, 26, Fleet-street, London, E.C.

WANTED, A SECRETARY for a COPPER MINING COMPANY, with HEAD-QUARTERS in SCOTLAND, but whose operations are principally abroad. He must be a good correspondent, have a thorough knowledge of books and accounts, and some experience in mining affairs. A knowledge of chemistry would be a recommendation. An eligible party may make this the nucleus of a good business connection. Salary, £100 to £120, according to qualifications.

Apply, in handwriting of applicant, stating previous employment and experience, to "Copper Mining Company, No. 101," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

WANTED, a SITUATION by a Young Man who has been UNDERGROUND and SURFACE SUB-MANAGER of an IRON ORE MINE. Good testimonials from last employers.

Address, "J. H.", Gresford Villa, Freehold-street, Fairfield, Liverpool.

WANTED, a SITUATION, as AGENT to MANAGE a LEAD MINE, by one who has had 18 years' experience, and is thoroughly acquainted with Dalling, Mapping, and Assaying Lead Ores, together with the general working of a mine in all its branches. Testimonials can be produced from high authority.

Address, "J. W.", Isle of Man Times Printing Office, Douglas.

WANTED, a thoroughly PRACTICAL and EXPERIENCED ENGINEERWRIGHT. Apply, in writing, to Mr. P. COOPER, Holmes Colliery, Rotherham.

WANTED TO PURCHASE, a 9½ fm. 16 or 17 in. PLUNGER LIFT of PUMPS, complete. WANTED TO SELL, TWO 9½ fm. 10 in. LIFTS of PUMPS, complete. Apply to Messrs. WM. and JEHU PERRY, Lew Down, North Devon.

PHOSPHATE OF LIME.

WANTED, to WORK, either from a MINERAL FIELD at home or abroad, or PURCHASE in quantity, ready for shipment. Address, "M. M. B.", MINING JOURNAL Office, 26, Fleet-street, London, E.C.

TO IRONMASTERs.

A N OPPORTUNITY occurs in SOUTH WALES for RENTING a BLAST FURNACE, nearly complete, on very favourable terms, on a property having superior SMELTING COAL and IRONSTONE, with COKE OVENS, a SIDING to a RAILWAY, and in the immediate neighbourhood of HEMATITE ORE and LIMESTONE.

For particulars, apply addressed letter box, 206, Post Office, Bristol.

POLISHING POWDER.

A CONSIDERABLE QUANTITY of PULVERISED MAGNETIC ORE, for CLEANING BRASS, STEEL, COPPER, PEWTER, &c., TO BE SOLD, BY PRIVATE CONTRACT.

Samples, prices, and testimonials will be sent, carriage paid, on application to Mr. SCOTT, Dolgelly; or to Mr. OWEN REES, Stationer, &c., Dolgelly.

WELSH LEAD MINE.

FOR SALE, the LEASE of a VALUABLE LEAD MINE, close to the celebrated Van and Van Consols Mines, for £2000. A good lode has been discovered.

Every information can be obtained on application to Mr. MATTHEW GREENE, Pluner's Hall, Old Broad-street, London, E.C.

FOR SALE, TWO HUNDRED SHARES, or under, in a paying LEAD MINE, that is opening out well. The shares are offered at prices that will return good profits on present working operations, with very promising prospects of much larger dividends. A rare chance for mining investors; machinery very complete.

To view, and for particulars, apply to Mr. JOSEPH HOWARD, White Swan-yard, Cloth Market, Newcastle-upon-Tyne; or at Consett, Durham.

WHITE MARBLE AND LEAD MINES.

On LOUGH VEAGH, co. DONEGAL, IRELAND.

TO LET, these PROMISING MINES. Have been opened, and the marble tested, and found excellent.

COAL MINE TO LET.—About THREE HUNDRED ACRES of that excellent COAL FIELD adjoining the mines now worked by the Irish Coal Mining Company, at BALLYLEHANE, near ATHY, IRELAND. Station of rail and canal.

Apply to the proprietor,— P. G. ADAIR, Esq., Monasterevan, Ireland.

SOUTHALL, EALING, AND SHEPHERD'S BUSH TRAM-RAILWAY COMPANY (LIMITED).

Notice is hereby given, that the Directors have THIS DAY MADE an ALLOTMENT of SHARES, and that the AMOUNT DUE THEREON MUST BE PAID to the bankers of the company, the London and County Banking Company, 21, Lombard-street, E.C., or branch offices, on or before MONDAY, the 8th day of AUGUST, 1870.

Prospectuses, forms of application for the remaining shares, and all particulars, can be obtained at the City and local offices of the company.

By Order, JAS. W. THOMAS, Secretary pro tem.

Registered office, 1, Circus-place, Finsbury-circus, London, E.C., 8th July, 1870.

TUOLUMNE GOLD MINING COMPANY (LIMITED).

Notice is hereby given, that the SHARE CERTIFICATES are NOW READY FOR DELIVERY in EXCHANGE for the BANKER'S RECEIPTS. Shareholders should at once send their receipts to the company's office, when the certificates will be forwarded in exchange.

By Order.

Temporary office, 1, Pluner's-court, Old Broad-street, London, July 14, 1870.

THE AUSTRALIAN MINING COMPANY (INCORPORATED under Royal Charter).

Notice is hereby given, that the TWENTY-FIFTH ANNUAL GENERAL MEETING of the shareholders of this company will be HELD at the London Tavern, Bishopsgate-street, E.C., on MONDAY, the 23rd inst., at One o'clock P.M., precisely, to receive the report, accounts, and balance-sheet for the past year; to elect directors in lieu of Lieut.-Colonel George Palmer and Frederick Collier, Esq., who retire by rotation; to fix the remuneration of the auditors for the past year; and to elect auditors for the present year.

By Order, GEORGE PALMER, Chairman.

No. 1, Coleman-street-buildings, Moorgate-street, London, E.C., July 11, 1870.

YUDANAMUTANA COPPER MINING COMPANY OF SOUTH AUSTRALIA (LIMITED).

EIGHTH ANNUAL MEETING.

Notice is hereby given, that the EIGHTH ANNUAL GENERAL MEETING of this company will be HELD at the City Terminus Hotel, Cannon-street, in the City of London, on TUESDAY, the 26th day of July, 1870, at Twelve o'clock noon, for the election of directors, in lieu of directors retiring by rotation, and of auditors, and for general purposes.

And, further, Notice is hereby given, that an adjourned SPECIAL GENERAL MEETING of the said company will be held at the time and place aforesaid, immediately after the conclusion of the said Annual General Meeting, for the purpose of taking into consideration the matters referred to in the notice convening a Special General Meeting on the 17th day of May last, of which the said intended Special General Meeting is an adjournment.

R. LOCK, Secretary.

66, Cannon-street, London, E.C., 14th July, 1870.

CAFARTHIA LEAD MINING COMPANY (LIMITED).

Notice is hereby given, that the FIRST ANNUAL GENERAL MEETING of this company will be HELD on TUESDAY, the 26th day of July, 1870, at the offices of the company, 32, Great St. Helen's, at Three o'clock P.M.

By Order, HENRY W. PETCH, Secretary.

CHATWOOD, STURGEON, AND CO.,

ENGINEERS, &c.,

BOLTON,

Sole Manufacturers of the Patent Self-acting

ORE CRUSHING AND PULVERISING MACHINERY,

Patent Coal-getting Plant,

Patent Air Compressing Engines,

Patent Blowers and Exhausters, &c., &c.,

"Dead Blow" Steam Hammer.

Testimonials and Prices post free on application.

GLASGOW OFFICE: 127 and 129, TRON-GATE—

P. and W. MACLELLAN, Agents.

LONDON OFFICE: 33, CORNHILL, E.C.—

DONALD ATKEY and Co., Agents.

NOTICE.—Messrs. H. BAILEY, SON, and Co., late licensees

EAST TANKERVILLE MINE (LIMITED).

In referring to MR. ARTHUR WATERS'S advertisement, in the MINING JOURNAL of the 9th instant, the Secretary of the East Tankerville Mine (Limited) is actuated solely by the desire of showing that the same did not escape his observation.

The absurdity of any comment on the fatuous disclaimer of Mr. Waters must be patent to all who have read the reports.

For the information of those who have not done so, the following interesting report on East Tankerville Mine is reprinted.

The Lombard Exchange, London, E.C., 14th July, 1870.

REPORT UPON EAST TANKERVILLE MINE, BY CAPTAIN EDWARD DAVIES, AGENT OF PERKINS BEACH MINE.

June 16.— In handing you my report on this very valuable mineral ground, which I think cannot fail to be highly productive, I have much pleasure in calling attention to a few facts on which I base my opinion. Its position is certainly one very much to be desired, because it immediately adjoins the Tankerville Mine on the west, Perkins Beach on the east, and the Bog and Pennerley Mines boundary on the south; consequently it is in the very heart of the best and largest mines in Shropshire, for, in addition to these, the Snailbeach Mine, on parallel lodes, is not far north. To dilate upon, as I readily could, all the numerous veins which pass through East Tankerville sett would occupy much space, but I will confine myself to those marked upon the plan, and first as to those veins which are known as east and west, running through the breadth of the sett for about 203 fathoms each. The greatest vein of Tankerville hading, as in that mine, north. I should not be doing justice to the value of this lode if I omitted quoting the words of Captain Arthur Waters, the manager of Tankerville Mine, who in his recently-published report on it stated:—"This is unquestionably one of the greatest, if not the greatest, lead-producing lode, in Shropshire. It is 20 to 30 ft. wide in places, runs nearly east and west, underlies scarcely 1 ft. in 4 ft., and, like the old Snailbeach lode, gets richer and richer as depth is reached. In the 42 ft. it yields 2 to 3 tons of lead ore per cubic fathom. In the 62 fm. level it produced 5 tons; the 62 fm. level, 7 tons; the 74 fm. level, 8 to 12 tons; the 84 fathom level, 20 tons; and now in the 92, the width of the lode laid open, which is 9 ft., it is worth quite 30 tons of lead ore per fathom."

Again, so late as the 26th May, 1870, the manager reported—"This great deposit of ore is equal to our highest expectations, and from the splendid appearance of the bottom ends and sides of the shaft to-day we are certain to be able to sample 150 tons for June working." And under date of 1st June, 1870—"The great lode continues to yield wonderfully, and we are astonished to see the quantities of rich lead stuff weighed into the bin from the small mark we have made in the ground. We have been stripping down the lode which was standing against the hanging wall of the shaft when I last advised you on this head, and the only difficulty we have is to describe the value of the great ore course in words that shall be believed." After traversing the Tankerville sett, this great lode passes directly into East Tankerville, and is the only lode therein which hades north. Birch's vein, as coextensive upon Perkins Beach sett, is found to be parallel with the Great Spar vein, and traverses East Tankerville sett. It is a very fine genial vein, and good stones of ore have been raised from it, one of which was upwards of a quarter of a hundredweight.

Great Spar vein underlies south, and therefore in depth in this sett the Tankerville lode will form a junction with it. From my intimate knowledge of the Shropshire mineral district I believe the Great Spar lode to be the nearest champion lode to Snailbeach. It has precisely the same characteristics. Its width near the surface averages 10 ft., and the barytes and carbonates of lime come up to grass interspersed with lead. So valuable is this lode considered that in the Perkins Beach Mine a cross-cut is being driven with all dispatch to intersect it. Cross' vein is about 80 fms. north of Great Spar, parallel to it, and hades south. From this vein and its counters upwards of 3000 tons of lead ore were raised in Perkins Beach Mine in a very small space of ground, and is still yielding good ore. Ox City and Birchill veins have been coextensive upon, and were found very well defined. In addition to these we have the caunter-lodes, "Burgum Vein" and "Pennerley Quarry Vein," which are known to traverse this sett, and in so doing will form very valuable junctions with five east and west veins. All practical miners look to Junction and caunter-lodes for vast deposits of ore. East Tankerville is rich in this respect. First the underlie of the Tankerville lode being north, and those of Birch's and the Great Spar south, will bring these three together in depth, at which points there can be no doubt of very good results. Few mines can be approached so advantageously as East Tankerville. Its adit level being near to the Great Spar lode is very important, as when that is reached and opened out upon east and west we can determine the point of the cross-cut for intersecting the veins lying north and south of it, as the rise of the mountain is so rapid that in a short distance the backs on the lodes become great, until a height exceeding 200 yards is attained. The Shropshire district being so well known, I refrain from speaking of the goodness of its roads and proximity to coal and railway.

EAST TANKERVILLE MINE (LIMITED).

A PROSPECTUS of this PROPOSED COMPANY will be FORWARDED on application being made by post, addressed to the offices, Claremont-street, Shrewsbury; or to the undersigned at the Lombard Exchange, Lombard-street, London, E.C.—14th July, 1870.

JOHN R. R. KEANE, Secretary.

THE FLORENCE AND TONKIN UNITED MINING COMPANY.

In 12,800 shares, on the Cost-book System.

PROVISIONAL COMMITTEE.
EDWARD NICOLLS, Esq., Solicitor, Callington.
JAMES PEARCE, Esq., Merchant, Tavistock.
WILLIAM BROWN, Esq., Surgeon, Callington.
PURSER—MR. THOMAS VOSPER, Callington.

BANKERS—Messrs. DINGLEY and CO., Callington.

This mine having been sold in liquidation of the old company,—the purchasers, believing it to be a very valuable mining property, and one which has really had no trial beyond a point where success might be anticipated, have bought it as a going concern; and are now resolved to offer it to the public at about its purchase price. The object being the immediate formation of a good company, to work the mine in a vigorous manner.

An excellent new 25-in. cylinder engine was erected thereon about four years ago, which is now at work; and other necessary machinery and buildings, with tools, &c., are on the mine, and now become the property of the new company, who possess it at less than half its original cost.

The mine is laid open to a depth where great success may be speedily expected. In the Wheal Tonkin part of the sett an excellent adit lode was opened on to a depth of 22 fathoms some years since, but was abandoned from the very low price of £1.

Four very promising tin and copper lodes traverse the sett from east to west, for a distance of about 600 fathoms; while near its western boundary a load lode of great promise crosses the sett from north to south in a channel of ground which for the production of lead cannot be surpassed. This lode can be reached by a continuation of the 22 fathom level, west from the present end, of about 20 fms., a point of great interest, from which may be anticipated good results.

The shares are offered at the nominal price of £10 per share, and a call of £1. each (£60) will be made early in August, to pay cost for the ensuing four months, from July 8, 1870.

It is estimated that from £100 to £120 monthly will give the mine a spirited working, and that twelve months will, probably, lay open a very valuable property, while returns of copper ore will, it is believed, be immediately made, with daily chances of improvement as the mine is being opened.

It must not be forgotten that the very excellent lode of the Princess of Wales runs through the whole length of this sett, at a very short distance from the engine-shaft.

More than one-half of the shares are taken by local parties, with whom many of the old company, thus showing their great confidence in the concern. There can be no doubt of these shares being immediately issued.

Applications for shares should be at once made, accompanied by a remittance, to the bankers of the company, or to the purser.

The Cliford Amalgamated Mines, June 16, 1870.—I have carefully examined the past and present operations in this mine, and beg to send you my report thereon. This sett is situated in the parish of Callington, and is extensive. The locality has been very rich for copper, lead, and tin. The sett is bounded on the east by the Prince and Princess of Wales, at present young but favourite mines; on the west by Redmoor Mine, which was formerly very rich for lead ores, and now at a very shallow level is about paying cost for tin; on the north by Holmehurst Mine, which in the last working gave a very large profit for copper ore, and is in the same parallel with Kelly Barc and Kit Hill.—Smith's Lode: There has been an adit driven from the foot of the hill 10 fms. east on this lode, towards Saw's shaft; the lode is from 2 to 5 feet wide, and has produced at this level (about 40 fms. from surface) occasional bunches of good copper ore, and some parcels of good arsenical and sulphurous muriatic. The 25 fm. level has been driven west of the shaft 60 fms., and has produced several tons of copper ore and muriatic; the lode in this end is composed of pyrite, muriatic, and some copper ore, a very strong and promising lode; there is a cross-course only a few fathoms ahead of this end, which very much improves the lode in the adit level. The 25 is driven east of shaft 20 fms.; the lode at this level from a few fathoms of ground produced over 20 tons of good copper ore. This ore was made in connection with another cross-course east of the shaft. The 45 is driven west of shaft 25 fathoms; the lode in the end is 3 feet wide, producing a large quantity of muriatic and stones of good copper ore. The 45 is driven east of the shaft 22 fathoms, and produced several tons of good copper ore. The 55 is driven 9 fathoms east of the shaft, and the cross course has just been intersected; they are now cutting south in search of the lode, and judging from the upper levels, I should think it probable that when the lode is met with it will be found productive. There has also been a shallow adit driven north about 40 fathoms, and intersected the Smith's and Knowling's lodes, both lodes have been opened on and found productive. Knowing's lode has been driven east of this shallow cross-cut 70 fathoms to Verran's engine-shaft; the lode is from 2 to 4 ft. wide, and looking very promising for producing copper. This level only 10 fms. from surface produced over 50 tons of good copper ore, and the lode has never been seen under this place at any deeper level. The deepest part of this mine is now only about 50 fathoms from surface, just the depth of the adit level in many mines, and the lode has presented encouraging appearances, rarely to be met with at such a depth. You will perceive from this report that the ore has invariably made about the cross-courses, which induces me to believe that if the eastern ground was worked near the great cross-course that made Holmehurst Mine so productive similar results at a moderate depth will be met with, and I believe if the bottom of the mine is properly prospected that any company of adventurers will be very soon repaid for their outlay.

Captain GILBERT.

Florence and Tonkin United Mines, June 20, 1870.—Saw's engine-shaft is sunk perpendicularly by 25 fathoms below the deep adit, or 55 fathoms from surface, in a good channel of mineral-rich killas. The 25, or bottom level, is driven east about 9 fathoms from shaft, and has just passed through the cross-course, which has at present di-di-red the lode. There was a similar change in the level above previous to entering the ore-ground, and looking at these changes I have every reason to think a great improvement will take place in this end as it is.

vances from the influence of the cross-course. The 45 fm. level is driven west of shaft 20 fathoms; the lode for the whole drivage is presenting a very kindly appearance, producing in places good stones of copper ore and muriatic. In the present end it is 3 feet wide, consisting of capel, peach, and muriatic, spotted throughout with rich quality copper ore. I may here remark that there is about 10 fathoms more to drive at this point to reach the lead lode, which is showing a very promising appearance in the level above, and which, in my opinion, will prove highly remunerative when seen at a deeper point of operation, by its being fairly opened out both north and south on its course. The 35 is driven east and west of shaft 80 fathoms, and in places good deposits of ore and muriatic have been met with; the lode in each of these ends is of a most promising character (the western end particularly), which is full 3½ feet wide, composed of capel, peach, and peach, heavily charged with arsenical muriatic, and containing good stones of copper ore. Verran's engine-shaft is situated about 100 fathoms east of Saw's shaft, and is down 15 fathoms below the shallow adit, or 33 fathoms from surface. The lode in and around this shaft is showing a very strong and healthy appearance, being in places above 5 ft. wide, and found to produce ore, more or less, at every point explored, and depth, in my opinion, is only required in this part of the mine to make it a valuable property. In conclusion, I beg to say the machinery on the mine is in good condition, and of sufficient power for putting the mine down to a good depth, and proving the side lodes which are known to exist, and from which in all probability tin was returned by the ancients, as the workings are extensive on the backs thereof. Although the different ends on the copper lodes are not at present producing much ore, yet they are presenting all the elements necessary in my opinion to ensure a successful future, and I am fully persuaded that a more spirited and extensive development is all that is necessary to make Wheal Mary Florence a lasting and profitable mine.

Captain RICKARD.

happens that it is precisely that class of accidents under the direct control of the men that lead to the largest number of deaths. In 99 mines out of 100 more lives are lost in the shafts than from explosion; and the deaths from explosion are not half so numerous as deaths from falls of roof and coal; yet, because explosions are somewhat more sensational, they attract more attention from the public, and, perhaps, cause more important matters to be neglected.

No one who is accustomed to the interior of a colliery can doubt the accuracy of Mr. HIGSON's observation, that underlookers and firemen are not, as a rule, sufficiently educated or trained to the strict observance of duty, though he must confess there are many really first-rate men among them. He finds a great absence of proper discipline below ground. Orders, when given, are not carried out, and are frequently altogether disregarded by the men. In making an examination before igniting shots firemen content themselves by examining one place only—namely, that in which the shot has to be fired—instead of examining those on every side. Any underground officer who issues the instructions should never neglect to see at once that they are properly obeyed. It is not possible to estimate the value of discipline too highly; it is a most important element of success. The men, young and old, should have this constantly impressed upon them; the special rules should be read and explained to them regularly; and the conduct of the under officers as to sobriety and punctual attendance to duty should be constantly observed and properly regulated. Now, although Mr. HIGSON suggests increased supervision for the under officers there is little doubt that they are not alone to blame. Men are now slaughtered for an idea, the masters being, as it were, compelled to appoint popular men from the ranks of the colliers to the position of officers, almost regardless of the ability they may possess. As a rule, steady intelligent colliers do not obtain the esteem of their fellow-workmen so readily as less industrious men, who prefer talking to hard work; yet if a master attempts to exclude a mere talking collier from office he risks the charge of being antagonistic to his workmen's interests, and the stoppage of his works in consequence. Until the workmen are wise enough to enact among themselves that no man shall represent them as their delegate unless he works during six months in each year in the mines accidents, preventable by the discretion of the men, will continue without material diminution.

That the increasing difficulties of coal mining have been encountered without much additional loss of life proves that much has been accomplished by Government inspection, yet further improvement must be looked for, not from augmenting the number of inspectors, but from seeing that working instead of talking colliers are promoted to be officers.

IMPROVED BLAST-FURNACE.

Messrs. J. and G. ONIONS, of Dudley Port, have recently completed the erection of a blast-furnace, designed to effect the consumption of the waste gases, after the manner of those in the Cleveland iron district. The furnace was commenced in January, and was put into operation ten days ago. It is of much larger dimensions than those ordinarily in use in the Black Country, being 50 ft. high and 13 ft. 6 in. in diameter at the bosh. The mouth is closed, but two massive tubes carry the smoke and flame to the hot-air apparatus and the boiler respectively. By this plan the saving of fuel and labour is, of course, very considerable. Mr. ONIONS estimates the saving of slack at 120 tons per week, of the aggregate value of 30L. The following labourers are also dispensed with—four firers, four bont unloader, one bridge-stacker, one coal wheeler, and one ash wagon. There is no escape of smoke whatever, and the furnace contracts strangely with those around it, each of which is polluting the air with sooty volumes by day and night. We noticed seven tuyeres on the furnace: ordinary furnaces have five. By having the greater number, however, a more equal distribution of the blast is effected. The furnace is now producing all No. 1 grey iron, for melting purposes, but it is intended ultimately to confine its produce to forge-iron. The present rate of production is 180 tons per week, being nearly double that of the old-fashioned Black Country furnaces. The cost of the new furnace, in erection and plant, is about 2000L. more than those on the old principle. The contiguous buildings are all on a complete and substantial scale. The stack is 150 feet high, 9 feet clear inside at the top, and has a base of 16 feet square. The design is entirely by Mr. ONIONS, and it infringes no patent right whatever. Many of the principal ironmasters in the district have been to see the furnace in operation, and express themselves satisfied with its success.

SIR ANTONIO BRADY'S IRON—"SEELY'S PIGS."—At the Working Men's International Exhibition, at the Agricultural Hall, Islington, one object of especial interest is display of specimens of iron obtained, by a process invented by Sir Antonio Brady, from some of that dockyard refuse irreverently described as "Seely's pigs," and which has been the subject of discussion both in Parliament and by the press. These pigs were of different qualities, but were all largely contaminated with phosphorus and sulphur, and were supposed to be of little or no value. The presence of phosphorus renders iron brittle when it is hot, the presence of sulphur renders it brittle when it is cold. The pigs containing both were worth in the market about 21 s. a ton. By Sir Antonio's process the sulphur and the phosphorus can be extracted at a cost of about 35s. a ton, and the residual iron is superb. It bears any and every test. One of the pieces exhibited had been beaten cold to the thinness of writing paper at one end, drawn to a point at the other, and then twisted by hand eight turns in an inch at a single heating. Massive bars had been beaten cold until the surfaces on each side of the bend came into perfect contact, and a plate 6 in. wide and ¾ in. thick had been beaten till its edges were in contact, the flat surface remaining horizontal. In neither case was there any trace of a flaw either at the convexity of the curve, where the metal was stretched, or at the concavity, where it was compressed. Holes in a thick plate had been enlarged by driving cones into them, and, in a word, the iron had been knocked about in every possible way. At a very low estimate it is worth 14s. a ton, and as there is plenty of the raw material to be had the profit of the invention seems likely to be great.

THE VICE-WARDEN OF THE STANNARIES.—Mr. E. SMIRK, the Vice-Warden of the Stannaries of Cornwall and Devon, has resigned his appointment, which is worth 1500L per annum. He has for a long time been in delicate health. The appointment is in the gift of the Duke of Cornwall.

GOLD MINING IN CALIFORNIA.—An opportunity is now afforded for the prospects of the Californian gold mines in which English capitalists are interested being, as it were, officially ascertained. Colonel BERTON, the Vice-Consul of France in California, has been charged to investigate in his official capacity the position and prospects of the Californian gold mines, because for some time past neither dividends nor satisfactory information has been obtainable. On Tuesday a meeting of English shareholders in Californian mines was held, and it was resolved to accept Colonel BERTON's services to investigate all Californian mines in their names, and in the same manner as he has been entrusted to do it by French shareholders in his capacity of Vice-Consul, with the aid of a competent engineer expressly appointed for the purpose. We may, therefore, expect to receive some reliable information.

PETROLEUM.—One of the most remarkable cases of the rapid growth of a new industry is that of the production of petroleum in Pennsylvania. The American papers publish statistics of the trade, which show that the total production for the past year of the Pennsylvania region is estimated at 3,816,966 barrels of 43 gallons each. The export for the year alone of refined and crude petroleum was 3,694,715 barrels, against an export in 1861 of only 27,000 barrels. It is remarked that while the production has increased the shipments abroad have also increased, so that by accident or design the relation of supply and demand is regulated with an exactness which is not in the same degree manifest in any other commercial commodity.

BOILER EXPLOSIONS.—During his examination before the Select Committee of the House of Commons, Mr. BARKER, the owner of about 80 boilers, said that there were 10,000 boilers in the Staffordshire district. At many of the large works in South Staffordshire the proprietors had their own boilermakers, engineers, and inspectors, and said they had all the appliances of inspection within themselves; but witness would much prefer an independent inspection, which would, no doubt, tend to diminish the number of accidents. Inspectors, well acquainted with the class of boilers in use in the district, and, no doubt, their inspection would prove advantageous. He was not prepared to say that inspection ought to be made compulsory. The association he believed to be fully competent to carry out boiler inspections, and he thought they could do better than Government. There was a difficulty, no doubt, in the fact that some steam users did not take advantage of the inspection by

the association, but he could not say that compulsion ought to be used in such cases. Some pressure, short of compulsion, might, perhaps, be devised to meet that difficulty. In his opinion, all boilers ought to be inspected, but it should be done, if possible, without Government interference, and with the least possible annoyance to the owners of boilers. He could not as yet see any way how universal inspection was to be obtained without theobjectionable alternative of compulsion, but he believed it would be found that the number of inspected boilers was increasing daily. It might be a public advantage if the inspection could be done through the medium of the Midland Steam-Boiler Inspection and Insurance Association, and others of a like character.

REPORT FROM MONMOUTH AND SOUTH WALES.

July 14.—The position of the Iron Trade in this district continues most satisfactory. At all the works the same degree of activity is exhibited as has been witnessed for several weeks past. In the manufacture of rails there is a particularly brisk business doing, and makers' books are kept well filled with orders; and there is little doubt but that towards the end of the shipping season a press of specifications will come to hand, which will in all probability have some effect on prices; the requisite caution will, therefore, be exercised by manufacturers in the few engagements they may enter into in the meantime. Although very large clearances are still effected to the United States, makers are not quite so much pressed with their connections in that quarter, and more attention is accordingly given to the Russian demand than has been the case for some weeks past, so that the quantities of railway iron forwarded just now to the Muscovite markets will bear more favourable comparison with those of four or five weeks ago. In respect of most of the principal sources of demand, the prospects of the trade are encouraging, and a lengthened period of prosperity is looked forward to. Some interruption in continental enquiries might be apprehended, however, owing to the disagreeable position which affairs have unexpectedly assumed between France, Spain, and Germany, but it is satisfactory to find that later information supports the hope that the disagreement of the nations may yet be arranged, and that the war which seemed for a few days inevitable will yet be avoided. This circumstance has not, however, been without its influence in the market, as may well be expected, makers having already shown some inclination to restrict transactions. In the home trade there is not much further improvement to note. Rail contracts are coming in slowly. At many of the iron works facilities for the manufacture of steel rails are being increased, and it is likely that this superior material will eventually be more generally used on the permanent ways of this and other countries. For pig-iron a good sale is effected at the advanced prices. Bars and the miscellaneous descriptions of make command only a slow enquiry.

The prospects of the Tin-Plate Trade are becoming more hopeful, a downward tendency being now evinced in the price of tin, and, with the advance of 1s. per box for plates, recently agreed upon by the Quarterly Meeting at Gloucester, tin-plate makers will derive greater profits on their production, and will thus be enabled to carry on their operations with greater freedom.

The position of the Steam Coal Trade is scarcely more satisfactory than reported last week. The demand is characterised by irregularity, which, of course, entails irregular working at the pits. The belief is, therefore, more prevalent that the advance in wages was a hasty move, and that the consequent rise in the price of coal has brought the trade to its present unsatisfactory position. The House Coal Trade remains quiet.

It will be remembered that subsequent to the recent explosion at the Morfa Colliery, the property of the Messrs. Vivian and Sons, the pit was found to be on fire, and the workings had to be abandoned, and, in consequence, the bodies of some of the unfortunate sufferers remained in the colliery undiscovered. Soon afterwards the manager, Mr. Grey, determined upon sinking the shaft from its depth of 180 yards to a total depth of 400 yards, which would be the only means of rendering the colliery workable. The work of sinking was accordingly proceeding with, and progressed rapidly, so that a few days ago the remaining three bodies were recovered, and brought out of the pit. They had been immersed in mud and water, and were in a remarkable state of preservation; and the position in which the bodies were found afforded strong proof of the accuracy of the theory propounded by the Government Inspector, Mr. T. E. Walker, at the enquiry before the coroner. The theory was to the effect that a small quantity of gas had lodged in the air-engine house, which by coming in contact with the naked gas lights ignited and fired the 60 lbs. of blasting-powder which was said to be stored within 7 or 8 ft. of it. The body of a man who was known to be near this spot when the explosion occurred was found to have been blown inwards and down the pit, which showed that the explosion was behind him, and confirmed the opinion that the catastrophe was caused more by the explosion of the powder than that of gas.

Some local interest is attached to the case of Tiden and Others v. Soudamore, which came before Mr. Justice Brett and a special jury in the Court of Common Pleas on Wednesday. The action was brought against the defendant, who is the secretary of the Rhymney Iron Company, to recover damages for the non-delivery of 2000 tons of Russian rails, with flat plates. It was shown that on the 5th of April, 1868, the Rhymney Iron Company entered into an agreement to supply the rails and ship them at Cardiff for Russia between the 3d of August and the 15th September. The contract was admitted, but the company said that it had been rescinded. It appears that the plaintiffs could, by the construction of the contract, alter the pattern of rails to be delivered, and on the 3d of August, a letter was handed by Mr. Tiden to Mr. Soudamore, altering the pattern, which caused defendant to state that more time would be required for delivery, but no reply was made. It was decided that no alteration in time was made, and a verdict for 113L 2s. 9d. damages was returned.

In the case of Browne v. Collins, recently heard in Vice-Chancellor Stuart's Court, the administration was involved of property of the value of £1,500,000, sterling, consisting of real property at Doncaster and elsewhere, estimated at £250,000., and partnership property in the Tredegar Iron Company, the property of the late Mr. Ferman. One of the executors, Mr. W. A. Collins, presented a petition praying that the partnership property might be directed to be sold. The Vice-Chancellor, however, held that a direction for sale would be premature, and ordered enquiries to be made as to the propriety of selling the testator's interest in the partnership property.

As compared with the corresponding period of last year, the returns of the trade of the South Wales ports for the last month are less favourable than those of earlier months in the year. The export of coal was as follows:—Cardiff, 160,544 tons, as compared with 159,095 tons in June, 1869; Swansea, 47,522 tons, against 47,730 tons; Newport, 28,476, against 24,132; and Llanelli, 11,048, against 13,543 tons. The shipments coastwise were:—Cardiff, 84,595 tons, against 87,965 tons in June, 1869; Swansea, 18,66, against 26,903; Newport, 69,576, against 70,493; and Llanelli, 18,397, against 17,163 tons. Cardif exported also 23,416 tons of iron, and 4911 tons patent fuel:—Swansea, 3276 tons of iron, and 9949 tons patent fuel;—Newport, 16,863 tons iron; and Llanelli, 51 tons of iron.

The arrivals at Swansea include—The Brennus, from Bilbao, with 150 tons of iron ore, for W. H. Thomas and Co.; Marie Therese, from Bilbao, with 115 tons of iron ore, for W. H. Thomas and Co.; Glanraland, from Huelva, with 525 tons of sulphur ore, to order; Witch of the Seas, from Carloforte, with 500 tons of zinc ore, for H. Bath and Son; Victory, from Bilbao, with 120 tons of iron ore, for T. Wood and Co.; Herolene, from Bilbao, with 149 tons of iron ore, for T. Wood and Co.; St. Pierre, from Carloforte, with 285 tons of zinc ore, for Richards and Power; Delphi, from Huelva, with 405 tons of sulphur ore, for Vivian and Sons; Serena, from Talat, with 750 tons of copper regulus, for H. Bath and Son; Law Ogilby, from Huelva, with 370 tons of sulphur ore, for Vivian and Sons; Professor Airy, from Caldera, with 425 tons of copper regulus, for H. Bath and Son; San Carlos, from Caldera, with 670 tons of copper regulus, for Elford, Williams and Co.; Harriet, from Bilbao, with 200 tons of iron ore, for James Strick.

REPORT FROM SCOTLAND.

July 13.—The hopes of speculators in Scotch Pig-Iron are not likely soon to be realised, as the "bears" have somewhat skilfully paddled their canoe under cover, and as several of the English holders are rather heavy-handed they are not likely to escape scathless. The course of the market was weighted by Spanish politics to an appreciable extent, but the depression of prices became more apparent when it became known that "bears" had all but covered their contracts by purchases, which were stored against warrants for forward delivery. This depression has been going on for the last few days, and if holders are hurriedly pressed into becoming sellers prices may recede 5s. or 6s. from the best of last month. On Monday, in these circumstances, the market was flat, and declined to 57s. 3d. cash. Yesterday it was 14d. per ton more in the forenoon, but closed up to 57s. 3d. cash and 57s. 6d. a month, and unsteady. To-day the market was unsteady, prices in the former being 57s. 3d. to 57s. 9d. cash; on peace being announced between France and Prussia the market became excited, and quotations rose to 58s. 2d. to 58s. 4d. cash paid, closing with sellers 58s. 2d. cash, 58s. 6d. a month. No. 1, g.m.b., 58s.; No. 3, 56s. 6d. to 57s. Coltness, 67s.; Gartsherrie, 66s.; Langloan, 62s.; Calder, 61s.; Eglinton, 58s.; Shotts, 60s.; Summerlee, 63s.; Glengarnock, 61s. 6d. The prices in this market are likely to recede rather than advance, owing to the falling off in the shipments, the thwarting of speculators, and the restoration of the *status quo* on the Continent. The shipments of Scotch pig-iron from the whole of the ports were returned at 9330 tons, against 12,400 tons in the corresponding week of 1869, which is a falling off at a time when an increase was expected. The pig-iron market will be shut from Thursday till Tuesday next for the Fair holidays.

Makers of Finished Iron have a sufficiency of orders on hand to

keep them fully employed, with some pressure for small quantities of various iron for shipment. Prices are held as last quoted, or as near the list price as buyers will give. Corrugated plates for shipment and hollow ware are in demand. Foundries easier, but the copper workers are well engaged.

Coals of the ordinary shipping descriptions are enquired for, as well as steam coals for coasting and ocean steamers, at late quotations. House coals neglected, but prices maintained, though weak. During the week the shipments from the Scotch ports amounted to 29,265 tons, against 26,105 tons in the corresponding week of last year, showing a strictly improved consumption. The colliers have been roused to clamour for higher wages; and during the week those of East and Mid Lothian have been urged by Mr. McDonald, and Mr. Brown, of Leeds, to make an effort to compel a wage of 5s. a day from their employers. In Fifeshire the eight-hours system has become pretty general there, but the masters are expressing dissatisfaction with the limited output—wages, 3s. 6d. to 4s. a day. In Motherwell, Merry and Cunningham, and one or two firms more, have given an advance to their colliers, which has brought up their pay to 5s. a day; but other employers wished to postpone the advance to the 1st proximo, and for this the men withdrew their "grait"; the masters came to terms before evening, and the strike is now at an end. The inspectors may well complain of the evils arising from itinerant delegates cramming miners with imaginary evils, instead of impressing on their minds the strict observance of all laws, both moral and legal. This is the bane of the miner, who otherwise would be contented and happy.

Mr. R. Moore's Report on the Mines and Collieries in the Eastern District of Scotland, for the year ending December, 1869, shows that the quantity of coal raised in the district was 8,500,000 tons, and the number of men employed 28,000. It would appear that fewer men have been employed than during the preceding year, not so much on account of increased emigration as by the depression in trade, and the increased number required by the shale works.

Throughout the year the men worked quietly, and during an extraordinary depression of the coal trade made fair wages. I have received from coalmasters details of the wages made by colliers in various localities of the district:—

In Lanarkshire, in the Wishaw and Hamilton districts, in a seam 5 ft. thick, rooms 12 ft. wide, stoops 20 yards square, a man during the year worked 259 days, and "newed and filled" 725 tons coal and dress for	£27 6 6
In the same district, under similar circumstances, another man worked 382 tons in 241 days for	52 17 6
Another, 667 tons in 247 days for	43 8 3
In Airdrie, seam of coal 4 ft., rooms 12 ft., stoops 12 yards, a man (52 years of age) in 249 days worked 885 tons for	51 8 10
In Fife, in a seam 4 ft. thick, worked by the long wall method, a collier worked 259 days, and newed and filled 788 tons for	46 19 2
In Midlothian, seam of coal 3 ft., long wall, a man worked 243 days, and newed and filled 515 17-20 tons of coal for	51 10 4

The earnings of a boy from 12 to 14 years of age, when working with his father, will be about one child, and from 14 to 16, three-fourths of the sum.

Fifty-five fatal accidents were reported to me. They were fatal to 55 persons, being 15 more than the previous year. The excess was in falls of roof and coal, and in miscellaneous accidents.

There is a progressive improvement in the ventilation of collieries in this district, more particularly about Hamilton and Wishaw, where the extensive application of the Newcastle system of leaving large pillars requires more air. Larger ventilating furnaces and air-ways are now to be found, and the underground managers and overmen (who are better paid than they used to be) are becoming more alive to the importance of large air-ways and good stoppings, and also to the principles of ventilation.

One hundred and forty accidents from falls of roof and coal were reported to me; 29 of these were fatal to 30 persons. This leads me again to repeat the suggestion that deaths from falls of roof and coal would be fewer if experienced men were employed to visit the men's places at intervals during each shift, to set props, or at least to see that sufficient props were put up to the roof and coal. I have no hope that a rule of this kind will be adopted by all without legislative enactment. I would add slightly, in many cases, to the cost of producing coals, but it would diminish loss of life.

On Wednesday a terrible explosion of fire-damp occurred at Messrs. Colin Dunlop and Co.'s No. 7 pit, at North Carslallan, Quarter. The pit is 74 fms. deep, and owing to a trouble a new mine was being driven to strike the seam on the rise; it was considered free from damp, the men although provided with Davy lamps usually working with naked lights. An explosion occurred, while five men were in the pit, tearing down the brattice work, and part of the side linings, to the height of 40 fms. John Watson had left the stone mine to signal to surface at the moment of the explosion, and was, no doubt, instantly killed. The pit-head man is also supposed to have been tumbled over into the shaft, and shared the same fate, as he is missing. The other four men at work in the pit were rescued. No explanation can be hazarded as to the cause of the explosion; but in the stone mine a blind pit was being sunk to the lower working, and a blast had been fired a short time before the accident. Some of those present at the scene suggest the probability of a "blower" of gas having suddenly opened; but this, of course, is mere surmise, and no certain knowledge can be acquired until the workings have been explored.

Since last week we may notice that there has been launched here another splendid steam-ship for the Cunard Company, named the *Algeria*, of 4500 tons, with accommodation for 1000 passengers. Also, another screw for the Pacific Steam Navigation Company of Liverpool, named the *Valdivia*, for the South American coasting trade. She is of 1975 tons, with inverted engines, of 300-horse power nominal, but capable of indicating 150-horse power. The *Valdivia* is chiefly intended for cargo, but has superior accommodation for passengers on the main and awning decks.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

July 14.—The Quarterly Meetings of the Iron Trade have been held, to-day at Birmingham and yesterday at Wolverhampton. The general tone of the meetings has been healthy, and even the cloud which threatens rupture between France, Prussia, and Spain cast over the general commercial horizon does not seriously damage the prospects of the iron trade, to which war gives a special, though no doubt a temporary, stimulus.

There is a steady demand for iron, and prices are rather firmer, though the proportion of Staffordshire iron selling below trade rates is very considerable. Pig-iron is firm, and best all-mine hot-blast South Staffordshire brands are at 75s. to 77s. 6d., whilst hematites are 80s. The reports from various quarters tend to show that the demand is likely to be good for the rest of the summer. It is impossible to look forward with confidence any further.

The trade, however, just as it is acquiring a little firmness of tone, has to encounter an agitation for an advance of wages. In both districts the men have held meetings, and are demanding an advance of 1s. per ton for puddling, and a general rise of 10 per cent. for other branches. It may be remembered that last November prices were raised, and also wages, and the result was that there was a speedy falling off in the orders. The ironmasters could not obtain the higher rates, and could not afford to take contracts so low as before, and the result, which was acknowledged on all hands, was the men got less wages than they would probably have done had no change been made; or, at any rate, had the change been of half the amount. Prices are now rising to the standard then adopted, and a demand comes for a further advance, and the general opinion is that to grant this would be to at once turn away the current which is raising the trade from depression. As yet the men have confined themselves to resolutions, and to an application to the masters, and have not decided to give notice. It would be an immense advantage if an understanding could be come to by which wages could be regulated for a year, so as to avoid the frequent contests which occur at every change in the state of the trade.

Everyone has learnt the harrowing details of the terrible accident at Messrs. Stanier and Co.'s colliery, at Talke, which was briefly noticed in the *Mining Journal* last week. Talke seems to be perfect slaughter-house for colliers. The enquiry has been adjourned, but in such a case—or rather, after so long a series of terrible explosions—it would seem to be the duty of the Government to institute a special enquiry, to ascertain the nature and the extent of the special liability to emissions of explosive gas, and to lay down special requirements for the working of mines, where so peculiar a degree of danger is involved. It is worthy of note that the enquiries have shown that, so far as the expenditure by the proprietors goes, every known precaution is taken, but it is difficult to secure perfect discipline, and a single careless man may render all precautions vain where gas exists in the workings. We shall hope to know more shortly of this terrible accident; but could not the local mine agents and the Government Inspector meet, and consider whether any additional means can be adopted for the future for avoiding the repetition of these terrible accidents? Mr. Lucas, the ground bailiff, in his endeavours to save any who might be left alive, showed great courage and endurance, and was admirably seconded. It is painful to know that the men at this colliery, shortly before the accident, had declined overtures made to them to join the association founded with the balance of

the Talke Fund as a nucleus, so as to provide for aid in sickness, and for their widows and orphans, in case of their own deaths by accident.—[At the close of the evidence the coroner summed up, and the jury, after consulting for half-an-hour, found that the deceased were killed by an explosion of gas, but how the explosion was caused there was no evidence to show. They considered, however, the return air-way was too small for the extent of the workings, and recommended that it should be enlarged.]

In addition to the flooding of mines in the Tunstall and Burslem portion of the North Staffordshire district on Thursday last, the colliery of Messrs. Hawley and Bridgwood, at Longton, on the opposite side of the coal field, was inundated. This has arisen from a fault, which protected the colliery from ponds of water in the mines on the north of it, having given way. The damage threatens to be very serious.

AN UNFENCED PIT SHAFT—£10 FINE.—At the Sedgley Police Court, John Turton, of Wombourne, was charged with neglecting to fence a pit shaft at the Dunkirk Colliery, West Bromwich. The complainant was Mr. J. P. Baker, Government Mine Inspector, for whom Mr. T. Walker, of Wolverhampton, appeared. Mr. Turton, who was charged as owner, at the commencement denied owning the colliery, but subsequently admitted that he was the agent for the proprietors. Mr. Spooner said that according to the terms of the Act an agent was liable for such an offence as that charged. Edward Smith of Green's Green, swore, that he saw that shaft referred to unfenced on March 6, when there were several children looking down the pit. It was only protected by some brickwork, one row higher than the level of the ground above it. On the 29th of the same month witness, in company with Mr. Baker, the Inspector, visited the pit again, and found it in a similar condition to that described. In about four or five days afterwards it was arched over and made safe.—In defence Mr. Turton said he immediately attended to the defect on the receipt of the Inspector's notice, and that the shaft was 200 yards from any public road.—Mr. Spooner inflicted a fine of 10s., remarking that it would have been 20s. but for his prompt attention to the Inspector's notice.

THE SOUTH MIDLAND INSTITUTE OF ENGINEERS.—The usual monthly meeting of members was held in Wolverhampton, on Monday, Mr. H. BECKETT, F.G.S., ex-president of the Association, occupied the chair, and there were also present, amongst others, Mr. S. Bowley, Mr. Rose, Mr. Walter Ness, Mr. Baker (of Bloxwich), and Mr. W. Underwood. The following persons were elected members of the society:—Capt. E. Groucott, Tettenhall-road; C. Smith, Tettenhall-road; Wm. Harwick, Chapel Ash, all of Wolverhampton; and T. Millership, of Nallston; Edward Sayer, of Wyrley; and Enoch Dadson, of Essington, Bloxwich.—The CHAIRMAN said that he regretted the absence of the President (Mr. Baker, her Majesty's Inspector of Mines), who was engaged out of the town. At the next meeting Mr. Baker intended to read to the society a continuation of his former paper.

The Council presented a report, in which they congratulated the members on the large accession of members and the general prosperity of the Institute. As the association was not now a novelty, the increase in the numbers was no doubt due to the interest taken in the working of the society. During the past six months the increase in the number of members had been 49. The meeting considered, and ultimately adopted, several alterations in the rules, which the Council of the society had suggested.

The HON. SECRETARY (Mr. J. Cope) reported that the committee of the society had seen Mr. Stokes, of Saredon, on the subject of borings which had taken place there. He seemed disinclined to give the committee much information, and thought that if he gave them the section of the borings he ought to be paid 20s. for it. The committee thought that this sum was a great deal too large, for, as they were all aware, the Saredon borings were made at a time when borings was very uncertain, and the section after all gave the Institute no assistance. The committee, however, thought that 2s. might be given to Mr. Stokes for the section. —In a short discussion which followed, the members said that they considered that as Mr. Stokes wanted as much as 20s., the matter had better end; and the Chairman added that a member of the society had the borings, so that the committee need not trouble anyone else for them.

Mr. COPE said, that after visiting Saredon, the committee went to Wyrley, to a spot where Mr. Hawkins is boring through marsh. Up to the present time, the borings were down 23 yards 1 foot in one place, 21 yards in another, and 40 yards in a third place. Mr. Hawkins told the committee that as soon as he got through the marsh, he would give the Institute any information, or a section, which they might think useful.—The CHAIRMAN said that the Institute had not yet decided upon a spot for a trial. He thought it was desirable that the Institute should visit Patshull Park, the seat of the Earl of Dartmouth, and see if there was any probability of finding coal there. He (the Chairman) had spoken to Lord Dartmouth upon the subject. His lordship approved the ideas of the Institute, and said that he should be happy to assist them.—Several members agreed with the Chairman upon the desirability of trying Patshull; but it was ultimately arranged that the matter should remain in abeyance until Lord Dartmouth returned to his seat.—Mr. BAKER thought that the Institute should examine ground at Elford, near Lichfield. He had no doubt that there was quite a large coal field there; and a few days ago he met a gentleman who expressed himself ready to assist the society in making a trial, if other persons would do the same.

TRADE OF THE TYNE AND WEAR.

July 14.—There has been a most seasonable arrival of vessels in these ports lately, both coasters and foreign, many of them of large tonnage. The exports of coal and iron have consequently been on a large scale, and the Coal Trade, both coastwise and foreign, on the whole good; the demand for steam and other coal for export is indeed very brisk

fall took place, which killed two of the men. With respect to accidents in shafts, the case is not so clear; it is remarkable that there is not a single accident from over-winding, which speaks strongly for the machinery used, and the skill and attention of the men employed. The greatest number of accidents in shafts appear to occur from the men being caught by spears or other things while ascending or descending, and one reason that may be given for this is, perhaps, the open kind of cage used. It is well worthy of consideration whether, if the cages used were more closed at the sides, some of these accidents might not be prevented; at any rate, little additional cost would be necessary to effect this. The loss of life from crushes from trams and tubs underground is serious, and a great deal, it is obvious, depends upon the care of the workmen employed themselves in order that accidents of this kind shall be prevented.

THE IRON AND COAL TRADES AT MARYPORT.—The coal trade at and around Maryport is extremely good, and has been so for some time. Most of the coals sent from here are shipped to Ireland, and the demand has been very good for a long period; but the establishment of iron works has also contributed much to the increased prosperity of the coal and coke trades. Two companies have commenced operations on the limited liability principle; one of them has two furnaces in blast, and two more in course of construction. The other company have two large furnaces, and are now erecting engines, &c. Rolling-mills are also in course of construction—indeed, are nearly completed. The situation for the profitable working of iron furnaces and rolling-mills is most excellent, as abundance of cheap coal and coke is to be had on the spot, and the great iron ore district of Whitehaven is within easy distance by rail, while the means of transit from the works for the finished article is good, either by sea or land. A large Liverpool steamer is now lading in the dock at Maryport pig-iron, the produce of the first-mentioned completed furnaces. At Aspatria the trustees of the late Capt. Harris are working a large quantity of coal from the old colliery, and they are also busily engaged in completing a new winning a little further eastward to the Aspatria seam. Two excellent shafts have been sunk and finished in the best manner, being lined throughout with fire-brick quarries. An excellent pumping-engine has been erected, also a good winding-engine, and every arrangement made on the most modern principles for the output of a large quantity of coal. The same firm also work the Ellensborough Colliery, near Maryport, and a considerable quantity of coal is raised here, and an excellent trade has been experienced during the present year.

DEATH OF MR. ATKINSON.—It is with much regret that we record the death, from apoplexy, of Mr. JOHN JOB ATKINSON, the Government Inspector of Mines for the South Durham district, which occurred on Wednesday morning. Mr. Atkinson was a native of South Durham, and served his apprenticeship as a viewer at the Hetton Collieries, and had considerable professional experience subsequently in South Wales and Durham. During the past 15 years he has occupied his official position to the satisfaction of all parties. He was not only a thoroughly practical man, but possessed considerable skill in mathematics, in engineering, and in science generally, and was an acknowledged authority upon all matters specially connected with the working and ventilation of collieries. His contributions to the Transactions of the North of England Institute of Mining Engineers, his paper on "Theory of Coal Mine Ventilation," which assumed the proportions of a short treatise on mine ventilation, not only having attracted much attention at the time, and formed the subject of many important discussions, but being still held as a standard work of reference on this very intricate and important subject. His papers "On Mechanical Ventilation," and other subjects, were highly appreciated, and he continually gave his fellow-members of the institute the advantage of his extensive knowledge of the various systems of coal mining practised at home, in Belgium, and in other countries. Mr. Atkinson was 50 years of age, and leaves a widow and 10 young children to mourn their loss. For ourselves we have lost an obliging and communicative friend, who was ever ready to furnish valuable information.

REPORT FROM THE NORTH OF ENGLAND.

Middlesbrough, July 14.—Tuesday's market was an average one so far as attendance was concerned, and an average also of late gatherings in point of business done. Enquiry for pig-iron was good, and the firm and advanced prices of last week were repeated—viz., for No. 1, 56s. 6d.; No. 3, 53s. 6d.; No. 4, 52s. 6d.; nett cash. The Franco-Spanish question was freely discussed, and the difficulty that has arisen on the Continent may be said in some degree to have already slightly affected the iron trade. Glasgow prices have given way, but the Cleveland rates show as yet no signs of decline. Since our last letter the Cleveland Ironmasters' Association return has been issued for June, by which we observe that the make of the district during June was 136,333 tons, being an increase of 16,019 tons upon the same month of 1869, and a decrease upon May this year of 5,496 tons. The stocks of pig iron in makers' hands were on the 30th of last month 64,889 tons against 68,014 tons on the 31st of May—a decrease during the month of 3,125 tons. The decrease in warrants was 1,800 tons; since the return was issued this stock has gone down 500 tons further, and now stands at 15,539 tons. Rail, plate, and bar iron trades are steady, and considerable activity is to be witnessed throughout the entire neighbourhood. A new works for the manufacture of puddled bars is to be started with at once on land at Eston, near Middlesbrough, and Mr. Richard Jackson, on whose land the works will be erected, is to be a leading partner, the managing partner being a gentleman connected with the iron trade in Staffordshire, Mr. T. Gill.

A strike of engine-builders at Stockton has attracted a good deal of attention this week. Messrs. Blair and Co., of that town, are very busy, and much pressed for the due execution of the orders they have on hand. Their employees have, consequently, been working overtime to a considerable extent, and under the recent system, it was stated, no workman was allowed to reckon overtime until he had worked 118 hours a fortnight, no matter for what reason he might be absent, or how many nights he might have worked, and then for time beyond the 118 hours he was only paid after the rate of time and a quarter. This the men objected to, and at a meeting, held by them a fortnight ago, resolved that they would not work any longer under that system; that overtime should be reckoned every day after six o'clock in the evening, even if a man lost the first quarter, i.e., 15 hours requested to work overtime, and the men working all night were paid for 15 hours, with an allowance of an hour and a half for meals. A deputation was sent to wait upon the senior partner of the firm to communicate this decision to him, and to inform him at the same time that if this request was not conceded they should refuse to work any more overtime. Mr. Blair agreed to pay 15 hours for all night-work, on the understanding that the first quarter of the day was not lost. The majority of the men, however, was dissatisfied with the result of the deputation's interview, and after a second meeting between the firm and the men's representatives, matters could not be amicably arranged, and on Monday morning 500 men refused to start work. Further consultations took place at night, and eight o'clock on Tuesday (yesterday) morning the generality of the men returned to work. It is reported that above 100 of the men on presenting themselves for work received their discharge.

The erections in connection with the new iron works on the Hylton Castle estate, close to the River Wear, are progressing rapidly. They are being built by Messrs. Oswald and Co., of Sunderland, shipbuilders, and are being constructed principally for the manufacture of iron for shipbuilding purposes. The furnaces are to be fed, it appears, with ironstone from the Cleveland district, which will be taken round from the Tees to the Wear by steamers.

The second new furnace of the Stockton Blast Furnace Company has been blown in, making the total now in blast in the Cleveland district, 109. The Sunday settling question came before the Quarterly Meeting of the Board of Arbitration, held at Newcastle, on Monday, and it was decided to ask Mr. Hughes, the arbitrator, whether or not men who entered into the wage contract at the beginning of the year are honourably bound to work on Mondays.

Mr. C. E. Muller, iron merchant (Middlesbrough, July 12), writes:—Since my last report the market for Cleveland pig-iron has remained very steady; a fair amount of business has transpired, chiefly for delivery forward. Although the first rush of the shipping season is now over, iron for present delivery continues very scarce, and is still quoted as follows:—No. 1, 56s. 6d.; No. 3, 53s.; No. 4, 52s.; f.o.b. in the Tots. There are now 110 furnaces in blast, against 108 this time last month, Messrs. Lloyd and Co. having blown in two new ones of the largest class. The following are the usual returns for June, compared with same month last year:—

	Production.	Coastwise.	Freight.	Warrant Stores.
June 30, 1870	136,333	18,947	24,097	54,672
June 30, 1869	120,814	11,286	17,555	16,039

Increase 16,019 7,661 6,535 Decrease 33,633

Makers' stocks are down to 64,889 tons, being a reduction of 3,125 tons since May. Reduction in store for the month, 1,800 tons. Total, 4925 tons. The iron of Cleveland makes rapid progress on the Continent, as shown by the following comparison of foreign shipments during first halves of the last three years:—January till end of June, 1868, 63,983 tons; January till end of June, 1869, 89,181 tons; Jan. till end of June, 1870, 131,695 tons. After abolishing the Rhine Navigation Dues, Prussia carried in the Zollverein Parliament the reduction of the Customs duty on iron, and has now succeeded in removing also the Elbe Navigation Dues. This will facilitate the carriage of goods to a very great extent on this most important of the German rivers. The reductions in transit will amount to from 10 to 50 per cent., according to the article and destination. An article like iron will, of course, profit most by it. The reduction on rails

and pig-iron for the interior will amount to about 2s. 9d. per ton. If to this is added the reduction of 5s. per ton import duty, which comes into force on Oct. 1, the prospects of a good trade in iron with Germany and Austria are certainly encouraging, and no district will benefit by it more than that of Cleveland.

PUDDLING IRON BY MACHINERY.—By the following report of the discussion on Mr. Lester's paper "On Puddling," at the meeting of the Cleveland Foremen's Association, our readers will learn with interest that a puddling-machine has been invented by Mr. Thomas, of the Acklam Refinery, a gentleman who has previously given the world singular proofs of his fertile inventive genius. Everybody connected with the iron trade, from ironmasters to ironworkers, is interested in the great question, Can a machine be made to puddle our iron? Wonderful as have been the triumphs of chemistry and engineering in the manufacture of self-acting tools during the last half-century, nothing has been done to ease the over-taxed puddler. The process of puddling, the great first stage in the manufacture of wrought-iron, is exactly the same as it was 50 years ago: indeed, an eminent authority, Mr. Williams, is not quite satisfied that puddling as a branch of the iron manufacture has not deteriorated during the last generation. True, machinery has been invented to assist in puddling the metal in the present furnaces, which has had the effect of materially lessening the labour of the under-hand, but the puddler has still to ball the iron in front of the fiery furnace, exhausting his strength, and, without doubt, shortening his life. Is there no help for this state of things? Does the mechanical genius of the country which gave birth to James Watt and George Stephenson slumber? No, that genius was never more active, never more on the alert, than it is to-day. All that is required is to ensure the perfecting of a puddling machine—the means for the concentration of the latent inventive talent around us, and success will surely follow.

The invention of the Bessemer process was a great stride in the manufacture of steel and steady iron. In the Bessemer process there is no lamination—it is solid homogeneous iron. So ought all iron to be made; and no puddling machine will be perfect unless its parts can be kept in thorough working order, and until it is easy of fettling and capable of thoroughly puddling a ball of any size required. It should also be competent to make the iron hard or soft, in order to suit the purpose for which it is intended, at the same time keeping it free from lamination. As journalists, we can bring these inventions into prominence and report progress, in the hope that practical men will be stimulated to wrest from Science her priceless secrets. All of us are vitally interested in making good iron. Our property and our lives are every day dependent on its quality, both on sea and on land. As we have stated, Mr. Thomas is prepared to make a machine that will puddle iron infinitely better than can be done by hand labour, with a saving of about 10s. per ton. For obvious reasons, we at present withhold a description of this machine; but we understand that Mr. Thomas is willing to communicate with any responsible gentleman connected with the iron trade, with a view of bringing out the invention. Surely the ironmasters will not be illatory in considering such a proposal. We think they are morally bound to lend all the assistance their capital and plant can furnish in giving a fair trial to an invention which promises such great results. Mr. Thomas believes his project to be the first brought before the public that will rival the Bessemer rail. Ship and boiler plates have never hitherto been made entirely free from lamination, and this desideratum Mr. Thomas is confident of accomplishing by his machine. The enormous revolution in the iron trade which would be effected by the introduction of a puddling machine must be patent to all who have any knowledge, however superficial, of the manufacture of iron; and we trust before long to be able to announce that a scheme is on foot to practically test Mr. Thomas's invention.

DISCUSSION ON MR. LESTER'S PAPER ON PUDDLING.—The ordinary monthly meeting of the Cleveland Iron Trade Foremen's Association was held on Saturday evening, the President, Mr. Oubridge, in the chair. The discussion upon the paper on Puddling, read at the last meeting by Mr. Richard Lester [published in the Supplement to the *Mining Journal*, of June 4], was resumed by Mr. Thomas, of the Acklam Refinery. He hoped the members had committed to memory the simple rules laid down by Mr. Lester, which were the basis of the science of puddling. He had shown that by careful attention to the science of manufacture iron of great excellence might be made from inferior pig metal; but to attain that excellence extra labour was necessary, which could not be obtained from the over-taxed puddler. Mr. Lester had also shown that when iron was puddled its quality was fixed; it is then good or bad for the purpose for which it is designed; and that phosphorus is the bane of the iron manufacture in the Cleveland district, causing excessive labour, with uncertain, and consequently unsatisfactory results. He (Mr. Thomas), to lay out a broader basis for discussion, would begin with the iron-stove, and would suggest that a few small jets of steam should be let into the lower part of the cylinder. As the steam descended it would be decomposed into its gases; the hydrogen would combine with sulphur and phosphorus, and would thus evolve as sulphuretted hydrogen and phosphuretted hydrogen. If after this process the materials of the charge still contained a portion of those deleterious ingredients, he would insert a small steam-pipe into the middle stove-pipe for heating the blast. His reason for inserting the steam in the middle stove pipe was to keep it from contact with the cold air, and to prevent its condensation. The blast would then be composed of air and steam properly mixed by diffusion. This composition would increase the oxygen, and no doubt would smelt more metals in a given charge. The hydrogen would be set free, and if its action in the furnace should prove to be the same as in the gas works or coke ovens, or with any other material in an incandescent state, it would combine with and carry off the phosphorus and sulphur. The process of puddling next requires their serious consideration. The process as now performed was very laborious, often protracting physically, morally, and intellectually the energy of the men employed. He was convinced that science was now equal to the task of inventing a puddling-machine that shall puddle and ball the iron infinitely better than can be done by hand labour. The iron made from small puddled balls was often unequal to the work it had to perform. It was often merely a mass of laminations, the effects of which might be seen in their rails and plates—splitting, slipping, weakening, and deranging the fabric they were meant to sustain. Having studied the question, he would engage, with proper assistance, to make a machine that should perfectly puddle 8 cwt. of metal into one ball within 35 minutes, which ball might be singed, re-heated, and rolled off into a single rail or plate. He would also engage that the iron should be infinitely superior to that made by the system now in use, and at a less cost of at least 1s. per ton. The only labour required from the puddler would then be the fettling, taking out the ball, and regulating the machine, and his work would thus be as easy as that of an engineer at a self-acting lathe. The difficulty was in carrying out such an experiment to get proper assistance, and it could only be obtained in works where the shilling hammer and the rails to roll off were at hand. After a few remarks from the Chairman, the discussion was adjourned until next meeting.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

July 14.—The iron works in Derbyshire were never more active than at present, rails and railway plant never having been in better request, and we hear of new furnaces being about to be commenced. At no time has there been so much doing in the production of pig-iron, whilst the demand for ordinary castings has been very good. A moderate business is being done in House Coal, but the demand for Steam Coal continues good. In Sheffield a good trade is being done in the heavy trades, more especially in large castings and in the production of Bessemer steel. Unfortunately, coalowners are placed in a very difficult position, owing to the agreement between the Midland and Great Northern Railway Companies, by which the latter has no power of reducing its rates to London and the South.

THE SOUTH YORKSHIRE STEAM COAL OWNERS' ASSOCIATION.—On Tuesday a meeting of the members of this association, which was only very recently established, was held at the King's Head Hotel, Barnsley, the chair being occupied by Mr. Crofts, of Pinder Oaks. The collieries which now comprise the association were stated to be those of the Wombwell Main Coal Company, the Lund Hill Coal Company, Mr. W. Way's Mount Osborne Collieries, Mr. T. Dymond's The Oaks, the Darfield Main Coal Company, Mr. Craik's East Gawber, Messrs. Wilcock and Lawton Blacker Main, the Denaby Main Company, and the Aldwarke Main Company. Mr. Crofts stated what had been done since the previous meeting, and described the present state and the prospects of the association. Arrangements had been made by which the large-t vessels could be supplied with the well-known Barnsley Hard coal direct from any of the collieries of the members of the association. As yet no large amount of business had been done; but as the coal was well known in Hull and Grimsby, and was on the lists of the English, French, and Indian Governments, the advantages offered by the association of treating direct with purchasers it was felt would be appreciated when the usual time for entering into contracts had arrived. By doing away with the intermediate profits of the broker and merchant, generally much larger than that of the coal-owner, Hull and Grimsby would be able to compete with Newcastle and the Welsh ports. The quality of the coal would also be guaranteed, as there would be no mixing of that of one district with another, or an inferior with a better quality, as has been the case in very many instances. It was stated that offices had been taken at Hull, and a gentleman well acquainted with the shipping trade had been appointed the agent for the association, and that all the necessary machinery for doing an extensive business had been completed. At the termination of the meeting the members dined, Mr. Crofts occupying the chair.

LEAD MINING IN SHROPSHIRE.

THE EAST TANKERVILLE MINE.

From the earliest ages the British Isles have been justly celebrated for the extent and value of their mineral deposits, and their fame has been recorded by more than one eminent writer of antiquity. The origin of the discovery of their hidden treasures lies veiled in the obscurity of forgotten ages, for though the finding of the distant lands called by them the Casiterides, or I-lands of Tin, is generally accredited to the ancient Phoenicians, it appears hardly probable that even those hardy mariners should have left their world-famed city of Tyre to sail such a lengthy and perilous voyage had they not been guided more by some foreknowledge of the probable result of their bold adventure than by mere chance or accident.

Following the Phoenicians came the Romans, who, pre-eminently a nation of soldiers, did not, perhaps, value so highly as their predecessors the mineral wealth of the kingdom they sought to conquer, but without doubt entertained no mean opinion of the advantages to be derived from the possession of those lead mines for the defence of

which the old Silures fought with such indomitable courage and determination. Abundant evidence shows that during their occupation of these islands the Romans actively developed the resources of many of the most remarkable lead mines of Wales and Shropshire, which from their time to the present day have been more or less intimately connected with the history, both political and commercial, of the United Kingdom.

The industry of mining has undoubtedly ever been one of the greatest sources of the national prosperity, and in proportion with its extension have our home manufactures multiplied, and our foreign commerce been widely disseminated. To the accomplishment of the results which have placed England foremost among the nations of the world it would be invidious to select one district as having contributed more particularly than others, but it is impossible not to notice, on taking into consideration its limited extent, how largely and with what unflinching regularity that portion of Shropshire in which the metallic deposits occur has yielded its share to the national income.

Lying on the western slope of the range of mountains known as the Stiperstones, this district, though but twelve miles in length, by six miles in width, contains many mines which have long been remarkable, not only for the richness of their produce, but likewise for the regularity with which the yield is maintained. Of these it will suffice to enumerate Snailbeach Mine, the Roman Gravels, the Bog and Pennerley Mines of the Stiperstones Company, and the Tankerville Mine. The extraordinary richness of the latter is so well known that it is needless to dilate on it here more than to remark that the ore course now being wrought is probably such an one as has never before been met with, and of the real value of which it is difficult, if not impossible, to form any correct estimate. For the length of the western boundary of Tankerville sett, and immediately adjoining it, lies a valuable piece of virgin mineral ground, traversed by numerous well-known and productive lodes, amongst which is that containing the ore course above referred to.

Northward of this piece of ground, which is known as East Tankerville Mine, lies Snailbeach Mine, which has been worked uninterruptedly for upwards of 90 years, making during that long period steady returns and large profits; to the north-east, and adjoining it, is Perkins Beach Mine, in which operations have lately been resumed with most encouraging prospects of permanent success. To the south are the Bog and Pennerley Mines of the Stiperstones Mining Company (Limited), which are not only yielding satisfactorily, but increasing in richness; lastly, to the west, as has already been stated, lies Tankerville Mine.

East Tankerville sett contains six well-known lodes, bearing nearly east and west, giving a total of about 2400 yards on the run of their courses, and, with one exception, underlying south; these lodes are traversed by several cauters, making within the boundaries of the sett numerous junctions, so much desired by practical miners.

The Tankerville lode, which has lately been described by Captain Arthur Waters as "unquestionably one of the greatest, if not the greatest, lead-producing lode in Shropshire," and of which at a later date he writes "the only difficulty we have is to describe the value of the great ore course in words that shall be believed," traverses the southern portion of this sett, carrying with it at surface every indication of maintaining its extraordinary productiveness, and, as it underlies north, will at no great depth form a junction with the Great Spar vein, where it is expected a great deposit of ore will be met with.

Of the other lodes in the sett, that known as Cross', may be mentioned as having returned in former working, of the adjoining Perkins Beach Mine more than 35,000z. of lead ore.

The natural advantages of East Tankerville are of a decided character, and cannot be too highly estimated; it is approached by good roads, and the configuration of the ground is such as will admit of the property being proved at a minimum cost by means of deep adit levels, which can intersect all the lodes contained in the sett, cutting the Tankerville vein at a depth of more than 600 ft.; thus the expense of sinking a shaft and erecting pumping machinery will be rendered unnecessary until the value of the mine has been fully established.

The adoption of share warrants to bearer by the proposed company is an excellent arrangement, which will afford their holders (who may be styled anonymous members of the company, in contradistinction to the registered members) every facility in the exercise of their rights of membership. All registered members will be entitled to convert any paid-up shares or stock into warrants, and any person being possessed of a warrant may, on surrendering it for cancellation, have his name registered as a member in the share register.

Of this property it may safely be asserted that seldom has an undertaking been initiated having such decided indications of early and permanent success as the East Tankerville Mine.

MINING IN MONTGOMERYSHIRE.

For many years past the general public have known very little of the rich mining capabilities of this district beyond the information afforded tourists in the guide books of the neighbourhood as to the large fortunes made by a few well-known individuals, who wisely worked their different properties privately, and without ostentation.

The rapid development of the Van Mine since it became the property of a joint-stock company has, however, brought the surrounding district into prominent notice, and several properties have thus changed hands, which might otherwise have remained comparatively undeveloped and unknown for years. Among the most prominent of the latter in the district is the mine situated at the top of the Penrhyn Mountain, near the picturesque village of Llanbrynmair.

This property has been in the hands of a private gentleman for some years, who, beyond working it at the summit of the mountain, did very little to open out its capabilities. The proprietor has lately invited 20 gentlemen to subscribe 100z. each, and a small joint-stock company has been formed, under the title of the "Fron-vellan Lead Mining Company (Limited)," to drive a long level at the base of the Penrhyn Mountain, so intersecting at that depth the lodes which have been worked upon at the summit. When this is done, it will give "backs" in height equal to the depth of the Dylife Mine, and extending over a mile in length.

BRYMBO, WREXHAM.
SALE OF VALUABLE FREEHOLD FARM AND MINERALS
THEREUNDER.

TO BE SOLD, BY AUCTION, pursuant to a Decree of the High Court of Chancery, made in a Cause of Forde v. Klunear, in One Lot, by Mr. JOHN CHURTON (the person appointed by His Honor the Vice-Chancellor, Sir William Milbourne James), at the Wynnstay Arms Hotel, Wrexham, on Thursday, the 21st day of July, 1870, at One for Two o'clock in the afternoon, subject to such conditions as shall be then produced,

ALL THAT VALUABLE FREEHOLD FARM,

Situate at GLANFARNON, in the township of BRYMBO, near WREXHAM, in the county of DENBIGH, containing 30A. 2R. 32P. of LAND, of statute measure, or thereabouts, be the same more or less, now in the occupation of Mr. Edward Jones, with the COAL and other MINERALS in and under the same.

The coal under the property has been proved, and consists of all the different seams worked in the immediately adjoining collieries of Broughton, Brymbo, Westminster, &c., &c., with any of which, or otherwise, they could be advantageously worked, and from the workings of such collieries intending purchasers will be enabled to form an estimate of the valuable quality of the coal under this estate.

Early possession may be had.

Particulars, plans, and conditions of sale may be obtained from the Auctioneer, Chester, and Whitechurch; or at the offices of Messrs. BURDEN and DUNNING, solicitors, 27, Parliament-street, Westminster; Messrs. CHURCH, SONS, and CLARKE, solicitors, 9, Bedford-row, London; Messrs. DUNCAN and CAYLEY, solicitors, Chester and Mold (where a section of the coal seams may also be seen); Messrs. JAMES and GRIFFIN, solicitors, Bennett's-hill, Birmingham, and at the said inn.

EDWARD BLOXAM, Chief Clerk.

Dated this 22d day of June, 1870.

TO BE SOLD, BY PRIVATE CONTRACT, with IMMEDIATE POSSESSION, all those works known as the

CASTLEFORD IRON WORKS,

Situate at CASTLEFORD, near LEEDS, comprising:—

A SMELTING FURNACE; a BLOWING ENGINE, of 25 horse power, with BOILERS, &c., in perfect repair, with patent flues and hot air stove.

Also, TWENTY COKE OVENS, the heat from which is conducted to the boiler; also a water lift, weighing machine, smiths' shop, offices, &c., and about four acres of freehold land, in which exist excellent beds of clay and sand.

The North-Eastern Railway, which adjoins on one side, and the Aire and Calder Navigation, which adjoins on the other side of the works, afford every facility for receiving material, and sending away the manufactured produce.

A small foundry is attached to the works, which may be purchased at the same time.

A portion of the purchase money may, if required, remain on security of the premises.

If NOT SOLD, THE WORKS WILL BE LET.

For further particulars, apply to Mr. GEORGE GRAHAM, C.E., Low Beechburn Colliery, near Darlington; or to Messrs. NORTH and SONS, Solicitors, Leeds.

**VALUABLE IRON ORE ROYALTY AT FRIZINGTON,
NEAR WHITEHAVEN, TO BE LET.**

TO BE LET, by proposal, for a term of 21 years, with possession on the 1st day of June, 1871, the very extensive and valuable ROYALTY OF IRON ORE under the ancient enclosed lands of the estates called FRIZINGTON PARKS, situated in the township of Frizington, in the parish of Arlecdon, in the county of CUMBERLAND, comprising an area of 262 acres, or thereabouts, distant about six miles from Whitehaven, and adjoining the well-known and productive iron ore mines in the Parkside, Goosengreen, Eskatt, and Ulnder Estates.

The Frizington Parks Estate is intersected by the Whitehaven, Cleator, and Egremont Railway, by which the ore can be forwarded direct either to the north or south iron districts, or to Whitehaven Harbour.

The owners do not bind themselves to accept the highest or any bidder.

Conditions of letting may be seen in London at the office of Messrs. GRAY, JOHNSTON, and MOUNSEY, 5, Raymond-buildings, Gray's Inn; and in the country at the office of Messrs. BROCKBANK and HELDER, Solicitors, Whitehaven, who will receive proposals up to the 15th day of August, 1870.

COAL FIELD TO LET.

TO BE LET, for Nineteen Years, with entry at Lammas next, the COAL FIELD of CLUNY, in the parishes of KINGLASSIE and AUCHTERDEERAN, and county of FIFE, with the COLLIERIES' HOUSES, all as lately possessed by Messrs. LANDALE and BOYD, with a trifling alteration in the marches, and with the exception of some of the houses formerly occupied in connection with the colliery.

The coal field has been fitted up with MACHINERY and PLANT of an excellent description, and suitable for the field, and a tenant may take the machinery and plant at valuation, or pay interest on the value thereof, as may be arranged.

The coal in the adjoining lands has been wrought for many years, and proved to be of excellent quality, and that now to be let is expected to be equally good.

If desired, a FIELD OF LAND can be LET along with the coal field.

For further information, application may be made to Messrs. DUNDAS and WILSON, C.S., 16, St. Andrew-square, Edinburgh; Messrs. J. and G. H. GEDDES, 5, Melville-crescent, Edinburgh; or to Mr. J. L. GOW, Rath, Kirkaldy, who will give directions for showing the boundaries, and offers will be received up till 20th July next.

TO BE LET, ON LEASE, for a term of years, SEVERAL ACRES OF LAND, suitable for MANUFACTURING PURPOSES, advantageously situated on the south bank of the River Tyne, about two miles below Newcastle-on-Tyne, and within a quarter of a mile from the North-Eastern Railway. There is a good quay frontage, with deep water.

Apply to Mr. T. S. BRAMWELL, King-street, Quay-side, Newcastle-on-Tyne.

VALUABLE CORNISH MINING MACHINERY.

MESSRS. J. C. LANYON AND SON have FOR SALE a very superior lot of the above, including—

80, 70, 60, 50, 30, and 24 inch PUMPING ENGINES;

22 inch ditto, with CAPSTAN and CRUSHER;

Several good BOILERS;

A large assortment of PITWORK of all sizes; STRAPPING PLATES, rolled and fastened, all of which are secondhand, in good condition, and will be sold on very reasonable terms.

For particulars, apply to—

LANYON AND SON, MERCHANTS, REDRUTH.

Dated Redruth, Feb. 23, 1870.

IMPORTANT NOTICE.

TO MINE PROPRIETORS, AGENTS, AND ENGINEERS.

MESSRS. J. C. LANYON AND SON, of REDRUTH, CORNWALL, having PURCHASED the WHOLE of the PLANT of the CLIFFORD AMALGAMATED MINES, beg to call the attention of all parties requiring SECONDHAND ENGINES, BOILERS, PITWORK, or MINING MATERIALS of any description, to the unprecedently favourable opportunity thus afforded for supplying their wants on the most favourable terms.

Communications to be addressed to—

J. C. LANYON AND SON, REDRUTH, CORNWALL.

**SECONDHAND MINING MACHINERY FOR SALE,
IN FIRST-RATE CONDITION.**

PUMPING ENGINES, of various sizes,—viz., 70 in., 60 in., 50 in., 40 in., 30 in., WINDING ENGINES, STAMPING ENGINES, STEAM CAPSTANS, and CRUSHERS of various sizes.

A NUMBER OF BOILERS.

PITWORK of all descriptions, and all kinds of MATERIALS required for MINING PURPOSES.

TO BE SOLD, AT MODERATE PRICES.

For further particulars, apply to—

MESSRS. HARVEY AND CO.,

ENGINEERS AND GENERAL MERCHANTS,

HAYLE, CORNWALL,

AND HAYLE FOUNDRY WHARF, NINE ELMS, LONDON,

CITY OFFICES (GRESHAM HOUSE), 29, OLD BROAD STREET,

MANUFACTURERS OF

PUMPING and other LAND ENGINES and MARINE STEAM ENGINES of the largest kind in use, SUGAR MACHINERY, MILLWORK, MINING MACHINERY, and MACHINERY IN GENERAL.

SHIPBUILDERS IN WOOD AND IRON.

THE PATENT PNEUMATIC STAMPS

May be SEEN AT WORK at HAYLE FOUNDRY WHARF, NINE ELMS, previously application at either of the above addressess.

FOR SALE, a superior secondhand 25-horse power PORTABLE STEAM ENGINE, also a 16-horse power, both equal to new, and guaranteed.

FOR SALE, cheap, several first-class new PORTABLE STEAM ENGINES, 8 to 12-horse power, with all recent improvements.

PIT WINDING GEAR made at a short notice, suitable for Portable Engines.

FOR SALE, a secondhand PORTABLE ENGINE, with a MORTAR MILL.

Apply to—

BARROWS AND STEWART, ENGINEERS, BANBURY.

FOR SALE,—THE UNDERMENTIONED ENGINES:—

ONE 50 in. cylinder PUMPING ENGINE, with ONE BOILER.

ONE 30 in. cylinder ROTARY STEAM ENGINE, 7 ft. stroke, with or without BOILER, wrought iron fly-wheel shaft, and 10 ton fly-wheel; 12 heads of stamp connecting rods.

ONE 30 in. cylinder PUMPING ENGINE, 9 ft. and 8 ft. stroke, with or without BOILER.

ONE 12 in. cylinder ROTARY STEAM ENGINE, with ONE 6 ton BOILER.

THREE Cornish BOILERS, from 10 to 12 tons each, in excellent condition.

Also, several Cornish CRUSHERS, of various sizes.

A 60 feet WATER WHEEL, with hammered iron round shaft, cast-iron sockets, rings, &c.

For further information, apply to—

W. MATHEWS, ENGINEER, TAVISTOCK.

Tavistock, June 6th, 1870.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the WHEAL POLMEAR MINING COMPANY.—TENDERS, stating the highest price that will be given for a 36 in. cylinder ENGINE, 10 feet stroke, even beam, and TWO BOILERS, 10 tons each, now being on Wheal Polmear Mine, in the parish of St. Austell, within the Stannaries of Cornwall, will be RECEIVED by the Registrar of this Court at Truro, within the said Stannaries, on or before Thursday, the 28th day of July instant.

The above machinery can be seen on application to the Officer of the Court in possession thereof at the Mine, and further particulars obtained of—

F. HEARLE COCK, Solicitor, Truro.

Dated Registrar's Office, Truro, the 13th July, 1870.

NORTH STAFFORDSHIRE.

TO BE SOLD, BY AUCTION, pursuant to an Order of the High Court of Chancery, made in a Cause of Williamson v. Williamson, with the approbation of the Judge to whose Court the said Cause is attached, by MESSRS. COOKSEY AND SON, the persons appointed to sell the same, at the North Stafford Hotel, Stoke-upon-Trent, in the county of Stafford, on Wednesday, the 20th day of July, 1870, at Three for Four o'clock in the afternoon, in 17 or such other lots, and subject to such conditions as shall be then declared, with the option of determining at the time of sale the order in which the lots

will be put up, the following VALUABLE PROPERTY, late belonging to HUGH HENSHAW WILLIAMSON, Esq., deceased, viz.:—

VALUABLE FREEHOLD AND LEASEHOLD ESTATES,

Consisting of FARMS and COLLIERRIES, situate at PINNOX and CHELL, in the parishes of BURSLEM and WOLSTANTON, in the county of STAFFORD, comprising 49A. OR, 12P. OF FREEHOLD SURFACE LANDS, WITH THE MINES AND MINERALS THEREUNDER; 26A. OR, 5P. OF FREEHOLD MINES, WITHOUT SURFACE, AND THE VARIOUS SEAMS OF COAL AND IRONSTONE UNDER; 53A. OR, 27P. OF LANDS ADJOINING THE FREEHOLD ESTATES, HELD UNDER LEASE FOR A TERM OF 40 YEARS FROM THE 24TH DAY OF JUNE, 1866; TOGETHER WITH THE FARM HOUSES AND FARM BUILDINGS, MANAGERS' HOUSES AND OFFICES, 100 WORKMEN'S DWELLINGS, FOUNDRY, FITTING SHOPS, SMITHS' AND CARPENTERS' SHOPS, WINDING AND PUMPING ENGINES, PIT SHAFTS, RAILWAYS, AND OTHER COLLIERY PLANT, ERECTED, AND BEING IN AND UPON THE SAID LANDS.

The mines include all the principal seams of coal and ironstone in the North Staffordshire coal field.

The situation of the property is in close proximity to the towns of Burslem and Tunstall, and within a short distance of the Trent and Mersey Canal, and the main line of the North Staffordshire Railway, the intended branch of which to Tunstall and the Potteries Loop Line will pass through the property, and the company are under obligation to complete both these lines by the 5th July, 1872.

The collieries are traversed by a private locomotive railway, by which the produce of the mines is conveyed to a wharf adjoining the main street of the town of Tunstall. There is another wharf belonging to the estate at Brown Hills, on the Trent and Mersey Canal, from which coal and ironstone are forwarded in large quantities to South Staffordshire and other districts.

The estate affords convenient sites for the erection of blast-furnaces and iron works, and contains an ample supply of excellent ironstone, as well as coal suitable for the manufacture of iron.

Printed particulars and conditions of sale may be obtained gratis from Messrs. JOSEPH COOKSEY AND SON, Auctioneers and Mining Engineers, West Bromwich; MR. JOHN BUTTERFIELD, Hoston Mills, near Tunstall; ELIAS DORNING, Esq., C.E., 41, John Dalton-street, Manchester; JOHN LANCASTER, Esq., Inc. Hall, Wigton, and Belton Grange, Rugby; MESSRS. SLATER, HELLS, and CO., SOLICITORS, MANCHESTER; MESSRS. BROCKLEHURST AND WRIGHT, SOLICITORS, MACCLESFIELD; MESSRS. BLAKE AND TRAFFORD, SOLICITORS, NORTHWICH; MESSRS. WEDLAKE and LETTS, SOLICITORS, STOKE-UPON-TRENT; and at the place of sale.

In Voluntary Liquidation under the Companies Act, 1862.

THE CAMBRIAN SLATE COMPANY (LIMITED).

TO BE SOLD, BY AUCTION, BY MR. T. W. HILL (by order of Mr. George Haswell, the Liquidator voluntarily appointed by the company), at the Wynnstay Arms Hotel, in Oswestry, on Friday, the 22nd day of July, 1870, at Three o'clock in the afternoon, in One or more Lots, and subject to conditions, the LEASEHOLD and other BENEFICIAL INTEREST of the CAMBRIAN SLATE COMPANY (LIMITED), in the CAMBRIAN SLATE QUARRIES, comprising all the VALUABLE PRODUCTIVE and EXTENSIVE VEINS, BEDS, and STRATA of SLATES and FLAGS, known collectively as

THE CAMBRIAN SLATE QUARRIES,

And in the offices, sheds, water supply, rights, easements, and interests thereto belonging, situate at CHWARL UCHA, in the parish of LLANSAINFRAIR, FFLFAID GLYN CEIRIOG, in the county of DENBIGH. And also the WHOLE of the PLANT and MACHINERY, moveable tools, and similar effects, and the STOCK of SLATES ON THE GROUND—ALL the property of the company.

The Cambrian Slate Quarries have been opened for several years, have produced a large quantity of first-rate slates, and are capable of great development. They are situated about ten miles from Oswestry, and will be upon a branch of the authorised Ellesmere and Glyndwr Valley Railway, about to be constructed as horse tramway under the provisions of a Bill now in Parliament, and by means of which tramway they will be placed in immediate connection with the Great Western Railway System and the Shropshire Union Railways and Canals of the London and North-Western Railway Company. They are now approached by the turnpike roads from Chick and Oswestry, and highways from Llangollen and Froncysyllte.

The quarries, machinery, and plant are in full working order and condition, and may be inspected at any time upon application at the works.

The property is held under leases, originally for thirty years, containing provisions for renewal for a further term of thirty years, which leases may be inspected at the offices of the solicitors, and will be produced at the time of sale.

Printed particulars may be obtained on application at the offices of the company, Foregate-street, Chester; or Messrs. LONGUEVILLE, JONES, and WILLIAMS, SOLICITORS, OSWESTRY, at each of which places maps of the property may be inspected, and all necessary further information obtained.

**GLAMORGANSHIRE, SOUTH WALES, NEAR ABERDARE
AND MERTHYR TYDVIL.**

VALUABLE MINERAL PROPERTY, also a QUANTITY OF VALUABLE PLANT, and a LARGE STOCK OF IRONSTONE, &c.

TO BE SOLD, BY PRIVATE CONTRACT, THE PENRHIW MINE WORKS,

Situate between the GLYN NEATH and HIRWAIN STATIONS on the VALE OF NEATH RAILWAY.

This property comprises about 600 acres of land, exclusive of about 250 acres on Hirwain Common, about to be allotted.

BICKFORD'S PATENT SAFETY FUSE,
FOR CONVEYING FIRE TO THE
CHARGE IN BLASTING ROCKS, &c.
Obtained the PRIZE MEDALS at the "ROYAL EXHIBITION" of 1851; at the "INTERNATIONAL EXHIBITION" of 1862, in London; at the "IMPERIAL EXPOSITION" held in Paris, in 1865; at the "INTERNATIONAL EXHIBITION," in Dublin, 1865; at the "UNIVERSAL EXPOSITION" in Paris, 1867; and at the "GREAT INDUSTRIAL EXHIBITION," at Altona, in 1869.

BICKFORD, SMITH, AND CO.,
of TUCKINGMILL, CORNWALL, MANUFACTURERS OF PATENT SAFETY-FUSE, having been informed that the name of their firm has been attached to fuse not of their manufacture, beg to call the attention of the trade and public to the following announcement:—
EVERY COIL of FUSE MANUFACTURED BY them has TWO SEPARATE THREADS PASSING THROUGH THE COLUMN of GUNPOWDER, and BICKFORD, SMITH, AND CO. CLAIM SUCH TWO SEPARATE THREADS AS THEIR TRADE MARK.

THE CORNWALL BLASTING POWDER COMPANY
ST. ALLEN MILLS, TRURO,
Beg to call attention to their WARRANTED WATERPROOF SAFETY BLASTING CARTRIDGES, adapted for SUBMARINE BLASTING and USE IN WET GROUND GENERALLY.
Prices and samples on application.

G. COPELAND, JUN.,
MANUFACTURER OF THE IMPROVED
PATENT SAFETY BLASTING CARTRIDGE
FOR DRY OR WET GROUND;
ALSO OF THE
EMPTY CARTRIDGE CASES, IN SIZES TO ORDER.
ADDRESS.—CONSTANTINE, NEAR PENRYN.

MACHINERY FOR MINES AND SLATE QUARRIES
SAWING, PLANING, DRESSING, AND ROCK-BORING MACHINES
FOR SLATE.
WATER BALANCES, WATER WHEELS, WINDING AND PUMPING MACHINERY; and PLANT of every description for MINES or QUARRIES.
STEAM ENGINES—STATIONARY, MARINE, or LOCOMOTIVE.
BOILERS AND GIRDER WORK.
SHAFTING, PULLEYS, AND GENERAL MILLWORK.
MACHINERY AND GENERAL CASTINGS.
SPUR and BEVEL WHEELS of any diameter or pitch moulded by machinery.

DE WINTON AND CO.,
UNION IRON WORKS, CARNARVON.

ENGINE COVERS—TARPAULINS—AIR SHAFTING
FOR MINES.

THE BEST DESCRIPTIONS, and as SUPPLIED to the LARGEST FIRMS, can be obtained at—
BENJAMIN EDGINGTON'S,
2, DUKE STREET, LONDON BRIDGE, S.E.

JOHN HORSLEY,
IRON AND METAL AGENT,
ST. ANN'S SQUARE, MANCHESTER.

PERMANENT CONTRACTORS, and COLLIERY RAILS, in STEEL or IRON.
Wrought-Iron or Steel Weldless Locomotive Carriage and Wagon Tyres.
Iron and Steel Straight and Cranked Axles, Wheels and Axles, Railway Chairs, Fish Plates, Bolts and Nuts, Spikes, Cranes, Jacks, Rivets, Hurdles, and Chains.
Black or Galvanised Telegraph Wires, Fencing Wire.
BLACK, OILED, and GALVANISED CORRUGATED SHEETS.
Rolled Iron Joints, Wrought-Iron Girders, Roofs, Bridges, Tanks, Boilers, &c.
Boat Girder, Tank Bridge and Boiler Plates.
Angle, Tee, and Girder Iron, Nail Rods, Tin Plates, Hops, Sheets, Lead, Copper, Tin, Zinc, and Speleer.
Hot and Cold Blast Pig Iron, &c., &c.

JAMES BUTTERWORTH,
MAKER OF ALL THE VARIOUS SIZES OF
VERTICAL AND HORIZONTAL HIGH-PRESSURE STEAM
ENGINES.
VERTICAL ENGINES, from 2 to 10-horse power,
HORIZONTAL ENGINES, from 3 to 40-horse power,
FORTY STEAM ENGINES, from 2 to 20-horse power,
In stock to select from, prices low, and ready for immediate delivery.

COLLIERY WINDING ENGINES
Made on an improved principle, up to 40 horse power.
STEAM DONKEY PUMPING ENGINES, from 2 in. up to 12 in., rams properly tested in actual work before delivery.

All made in a good, strong, substantial, workman-like manner, of the best material, and warranted to work well.
Plans, specifications, and estimates furnished upon application at the
ALBERT STREET ENGINE WORKS, MANCHESTER.
ESTABLISHED 1840.

PATENT SELF-REGISTRATION COLLIERY WINDING INDICATOR.

THIS INDICATOR, in addition to its ordinary use, INDICATES and REGISTERS the NUMBER of WINDINGS, thus enabling the Manager to check at a glance the returns of the Banksman or Clerk.

PEPPER MILL BRASS FOUNDRY COMPANY,
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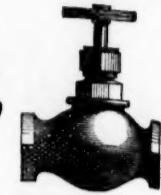
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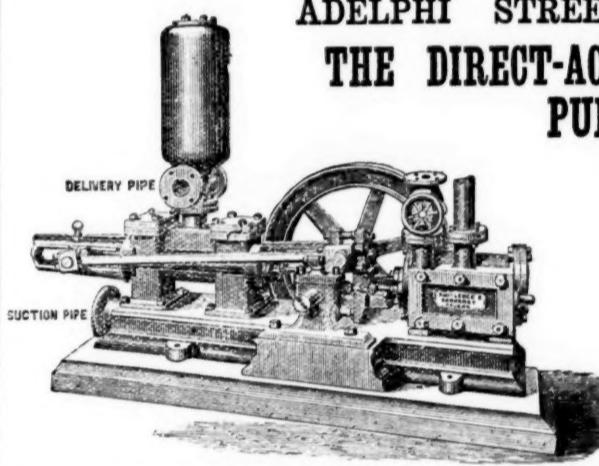
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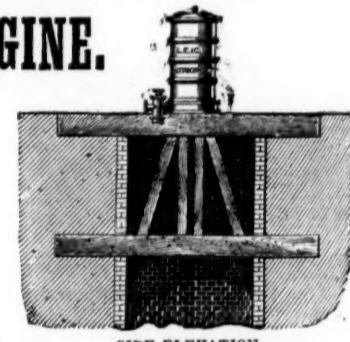
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Fig. 144
Fig. 146
Fig. 147
Fig. 148
Fig. 149
Fig. 150

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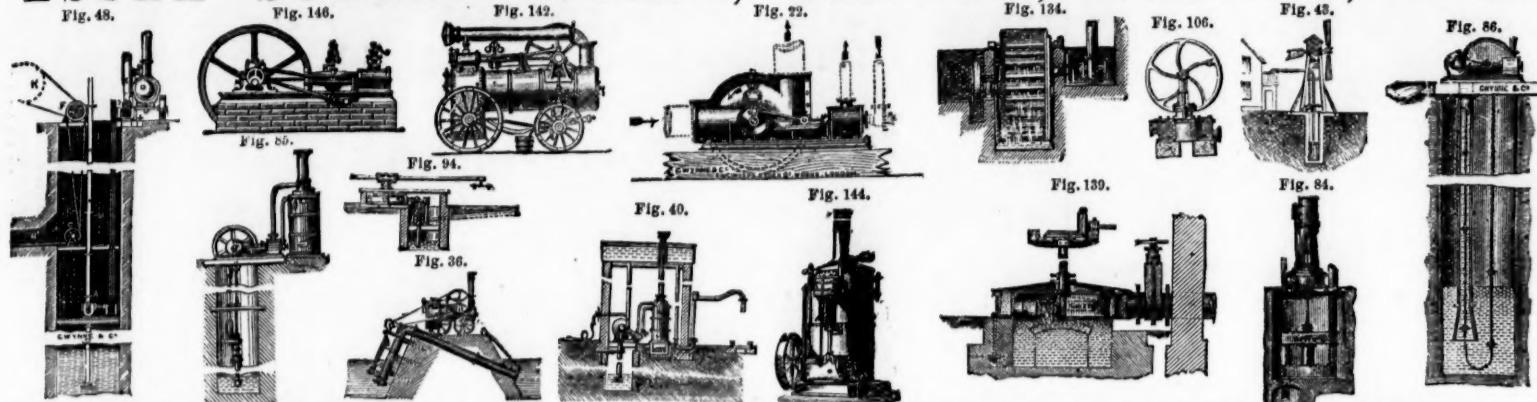


Fig. 144.—Vertical Engine, all sizes, from 2 to 20-horse power.
Fig. 146.—Horizontal Engine, from 4 to 100-horse power.
Fig. 142.—Portable Engine, from 2½ to 30-horse power.
Fig. 40.—Gwynne and Co.'s Combined Stationary Pumping Engine.
Fig. 139.—Turbine Water-wheel, from 1 to 300-horse power.

Fig. 22.—Combined Pumping Engine, all sizes, obtained Prize Medal, Paris Exhibition.
Fig. 85.—Deep Well Pumping Engine, all sizes.
Fig. 134.—Water-wheel Pumping Machinery.
Fig. 36.—Gwynne and Co.'s Patent Syphon Drainage Machinery.
Fig. 95.—Horse-power Pumping Machinery.

Fig. 86.—Chain Pump Pumping Engine.
Fig. 48.—Deep Mine Centrifugal Pumping Machinery.
Fig. 84.—Double-acting Vertical Pumping Engine.
Fig. 106.—Gwynne and Co.'s Improved Plunger Hand Pump.
Fig. 43.—Wind Power Pumping Machinery.

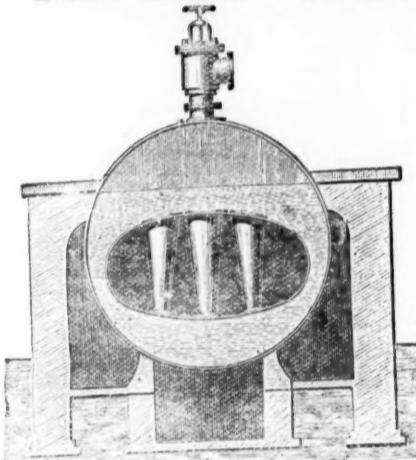
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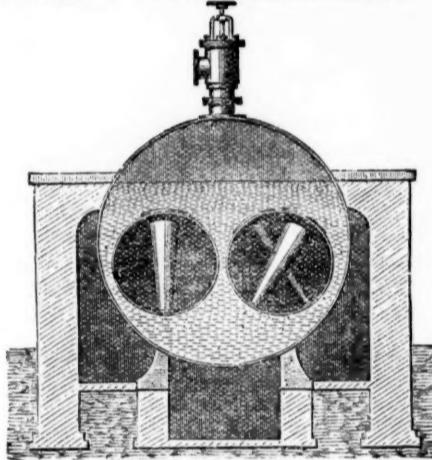
Section of the "Galloway" Boiler, showing arrangement of back flues, the furnaces being of the same construction as in the common two-flued boiler.

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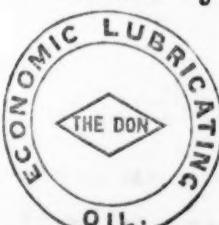
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910 Cargill, s-l, Newlyn.....	15 8 7 .. 5	16 15 0 .. 0 10 0 ..	Aug. 1869		
1280 Chanticleer, t, Flint.....	0 7 8	0 1 0 .. 0 0 6 ..	Nov. 1869		
2450 Cook's Kitchen, c. Illogan†	19 14 9 .. 91	19 1/4 20	4 3 0	0 10 0 .. 0 10 0 ..	July 1870		
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656 Ding Dong, t, Galway*	14 9 16 .. 18	..	16 18	6 0 .. 1 0 1 ..	Dec. 1869		
1432 Dolcoath, c. t, Camborne.....	32 4 6	132 1/4 137 2	242 2 6 .. 0 2 6 ..	June 1870		
1280 Drake Walls, t, Calstock* ..	2 10 0	114 13%	1 2 3 .. 0 1 3 ..	Apr. 1870		
614 East Cardon, c. St. Cleer	2 14 6 ..	43% 51/4	14 11 6 ..	0 2 0 ..	July 1869		
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10240 Gunnislake (Clitteris), t, c.	4 19 0	0 1 0 .. 0 1 0 ..	July 1870		
1024 Herodsfoot, t, near Liskeard ..	8 10 0 ..	40 ..	41 43	52 10 0 .. 1 10 0 ..	Feb. 1870		
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